PRAXAIR

Making our planet more productive

Sustainable Value Report 2017

Photo Captions

The cover photograph shows Jennifer Dray, a Praxair Production and Logistics planning manager for our US Industrial Gas company. Jennifer is a graduate of the University of Buffalo, NY, with a B.S. and M.S. in Mechanical Engineering. She started working with Praxair in 2005 and has taken on a variety of roles since then. In her current job, Jennifer worked closely with the Praxair Digital team, Praxair's Information Technology Department and U.S. Industrial Gas business members to create an innovative, customized integrated production and distribution planning tool that minimizes the total merchant liquid network costs by better coordinating sourcing, production, and distribution decisions with a holistic approach to merchant liquid sales and operations planning. The tool will drive a reduction in distribution variable costs and overall energy consumption helping to reduce Praxair's environmental footprint. For more details see page 27.

Forward Looking Statement

This document contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on management's reasonable expectations and assumptions as of the date the statements are made but involve risks and uncertainties. These risks and uncertainties include, without limitation: the expected timing and likelihood of the completion of the contemplated business combination with Linde AG, including the timing, receipt and terms and conditions of any required governmental and regulatory approvals that could reduce anticipated benefits or cause the parties to abandon the transaction; the occurrence of any event, change or other circumstances that could give rise to the termination of the business combination agreement; the ability to successfully complete the proposed business combination, regulatory or other limitations imposed as a result of the proposed business combination; the success of the business following the proposed business combination; the ability to successfully integrate the Praxair and Linde businesses; the risk that the combined company may be unable to achieve expected synergies or that it may take longer or be more costly than expected to achieve those synergies; the performance of stock markets generally; developments in worldwide and national economies and other international events and circumstances; changes in foreign currencies and in interest rates; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; catastrophic events including natural disasters, epidemics and acts of war and terrorism; the ability to attract, hire, and retain qualified personnel; the impact of changes in financial accounting standards; the impact of changes in pension plan liabilities; the impact of tax, environmental, healthcare and other legislation and government regulation in jurisdictions in which the company operates, including the impact of the U.S. Tax Cuts and Jobs Act of 2017; the cost and outcomes of investigations, litigation and regulatory proceedings; the impact of potential unusual or non-recurring items; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; future financial and operating performance of major customers and industries served; the impact of information technology system failures, network disruptions and breaches in data security; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause actual future results or circumstances to differ materially from the GAAP or adjusted projections or estimates contained in the forward-looking statements. The company assumes no obligation to update or provide revisions to any forward-looking statement in response to changing circumstances. The above listed risks and uncertainties are further described in Item 1A (Risk Factors) in the company's latest Annual Report on Form 10-K filed with the SEC and in the proxy statement/prospectus included in the Registration Statement on Form S-4 (which Registration Statement was declared effective on August 14, 2017) filed by Linde plc with the SEC which should be reviewed carefully. Please consider the company's forward-looking statements in light of those risks.

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Message from Praxair's Chief Executive Officer

"Sustainable Development is ingrained in Praxair's culture and an integral part of our mission of making our planet more productive."

Dear Stakeholder,

Sustainable Development is ingrained in Praxair's culture and business operations and is an integral part of our mission of making our planet more productive. This year's Sustainable Value Report again illustrates some of the important achievements that are reflected in our financial and operational results and the global impact of our business.

Commitment to Sustainability

We successfully closed out the second year of our 2020 Sustainable Development Targets (2016-2020), and have achieved or are on track with all of them. 2017 results include:

- Achieving a recordable injury rate that was eight times better, and lost workday cases that were 20 times better than OSHA benchmarks

- Earning 58% of revenue from our sustainability portfolio, which consists of innovative applications that bring environmental and social benefits to our customers

- Enabling our customers or their end users to avoid more than double the GHG emissions than were emitted in all of our operations. Praxair's Hydrogen gas used to help produce cleaner air by reducing diesel sulfur emissions from trucks and cars is estimated to save society more than a billion dollars in potential health, social and environmental costs

- Realizing more than $100 million in savings from resource efficiency through our sustainable productivity program, which contributed to our historically strong operating margin and return on capital

- Delivering direct benefits to more than 350,000 people around the world through our employee engagement program – more than 13 beneficiaries for each Praxair employee

Continued Recognition

Praxair has been selected as a component of the prestigious Dow Jones Sustainability World Index for 15 consecutive years, recognizing the company's long-standing commitment to environmental and social responsibility – the only U.S. chemical company with this distinction.

Additionally, Praxair was recognized by Forbes as one of the Best Employers in America in 2018 and named to Corporate Responsibility Magazine's 100 Best Corporate Citizens List for the sixth consecutive year. We are also proud to be named to the DiversityInc's 2018 list of Noteworthy Companies for Diversity, and named a 2018 World's Most Ethical Company® by the Ethisphere Institute.

Vision and Values

Our vision to be the best performing industrial gases company in the world means more than just financial performance. It is an ongoing commitment to our core values: safety, integrity, customer satisfaction, diversity & inclusion, environmental stewardship and community engagement, in addition to being a results-driven high-performance company.
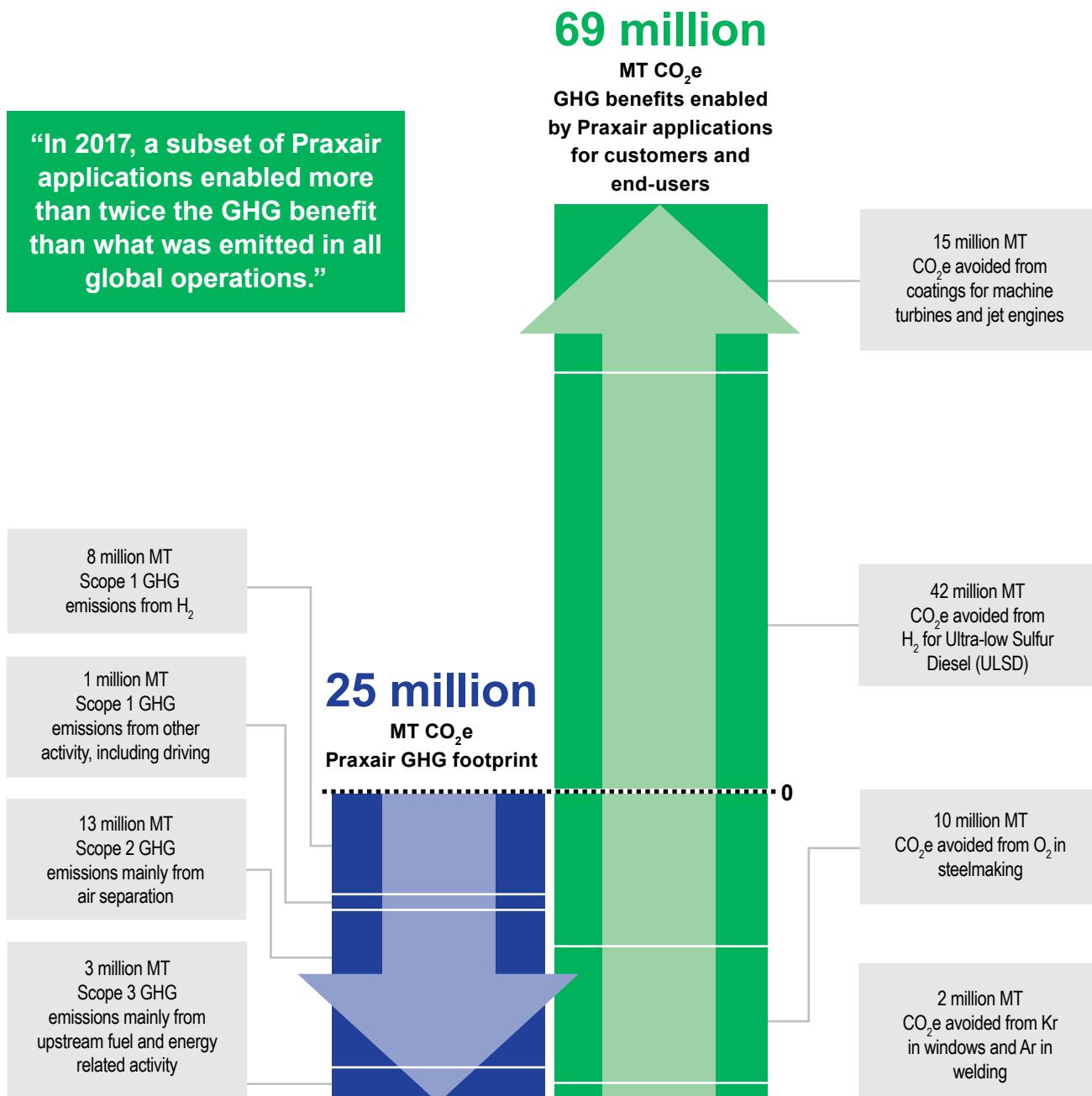
I am proud that these values are shared by our more than 26,000 employees around the world. They continue to knit us together as a company and create lasting social, environmental and economic value over the long term.

Steve Angel

Steve Angel
Chairman, President and CEO

Praxair Applications Enable >2X Carbon Productivity*

Praxair is a company in the business of resource transformation in a world concerned about climate change. We have adopted a target to demonstrate that we can transform natural resources and add more than twice the value than what we deplete. We seek to annually demonstrate that a subset of Praxair applications allow our customers or their end-users to avoid more than twice the GHG emissions of all Praxair operations and its value chain. In 2017, total GHG emissions were 25 million MT CO_2e, vs. 69 million MT CO_2e avoided by our customers or end users, from the five applications shown below - well over two times more GHG benefit created than depleted. Details are provided in the *Performance Dashboard*, page 26.

69 million

MT CO_2e
GHG benefits enabled
by Praxair applications
for customers and
end-users

"In 2017, a subset of Praxair applications enabled more than twice the GHG benefit than what was emitted in all global operations."

15 million MT CO_2e avoided from coatings for machine turbines and jet engines

8 million MT Scope 1 GHG emissions from H_2

1 million MT Scope 1 GHG emissions from other activity, including driving

25 million

MT CO_2e
Praxair GHG footprint

42 million MT CO_2e avoided from H_2 for Ultra-low Sulfur Diesel (ULSD)

13 million MT Scope 2 GHG emissions mainly from air separation

0

10 million MT CO_2e avoided from O_2 in steelmaking

3 million MT Scope 3 GHG emissions mainly from upstream fuel and energy related activity

2 million MT CO_2e avoided from Kr in windows and Ar in welding

* Numbers are rounded to the closest million. Details are provided on page 26.

Riva Krut (right) stands with Laura Cyrus, Operations Director of Truckers Against Trafficking (TAT), at TAT's Employee Forum which took place at Praxair's global headquarters in Danbury, CT

Dear Stakeholder,

Praxair's sustainable value is the delivery of clear business benefits that also help to address significant global challenges. Our applications transform atmospheric and process gases into value for society – hydrogens helps clean the air, oxygen helps improve energy intensity in the production of products from glass to steel, and byproduct CO_2 helps desalinate water and improve the freshness of food and beverages.

Building sustainable value is also local and very personal. In addition to serving our customers in their communities, Praxair's more than 8,000 drivers and contract drivers are also members of and contributors to the communities where they live and work. Some years ago, we observed that overnight truck stops were being used to promote sex

trafficking in certain countries where Praxair operates. This presented an opportunity for our drivers to take action to protect human rights in those communities. Starting in Brazil and now also in the U.S., Canada and soon in Mexico, Praxair drivers worked with local anti-trafficking groups to become trained to help prevent trafficking. Many of our drivers and contract drivers, like Praxair Canada's Steve Choinard, report that they were motivated to act because they are parents (see page 20).

In 2018, training was extended to Praxair offices across the Americas. We are proud that more than 4,000 Praxair employees, drivers and contract drivers have been trained and are actively adding "eyes on the road" to help eliminate this heinous crime. In the U.S., Canada and Mexico, Praxair is supporting Truckers Against Trafficking (TAT). TAT Executive Director, Kendis Paris, noted that, "Praxair is among the leaders of the TAT Shipping Partners Program and are part of a mobile army of transportation professionals (and regular drivers) that can make a difference by recognizing and reporting human trafficking that can help to aid in the recovery of victims and the arrest of their perpetrators."

Praxair employees, from PhD engineers developing applications to meet the global

challenge of climate change, to drivers proactively helping to protect human rights in our communities are the human capital, the lifeblood of our company. The image on the facing page salutes some of the net sustainable value created by each Praxair employee in 2017. Together, we are making our planet more productive.

This report describes how Praxair's five-year Sustainable Development SD 2020 targets keep us focused on continuing to meet business challenges and helping to solve some of the world's biggest social, economic and environmental challenges as described by the UN Sustainable Development Goals (UN SDGs).

I offer a warm thank you to all our employees, and to our many stakeholders on whom we depend.

Riva Krut.

Riva Krut, Vice President & Chief Sustainability Officer

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Tel: 203-837-2337

The six capitals of Integrated Reporting

Throughout this report, we show how Praxair nurtures natural capital, human capital, as well as the financial, and intellectual, manufactured and social capitals to create enduring sustainable value. These "six capitals" of Integrated Reporting are referenced with these icons throughout this report.

|	
$ FINANCIAL	⚒ MANUFACTURED
🌿 NATURAL	💡 INTELLECTUAL
👤 HUMAN	👥 SOCIAL
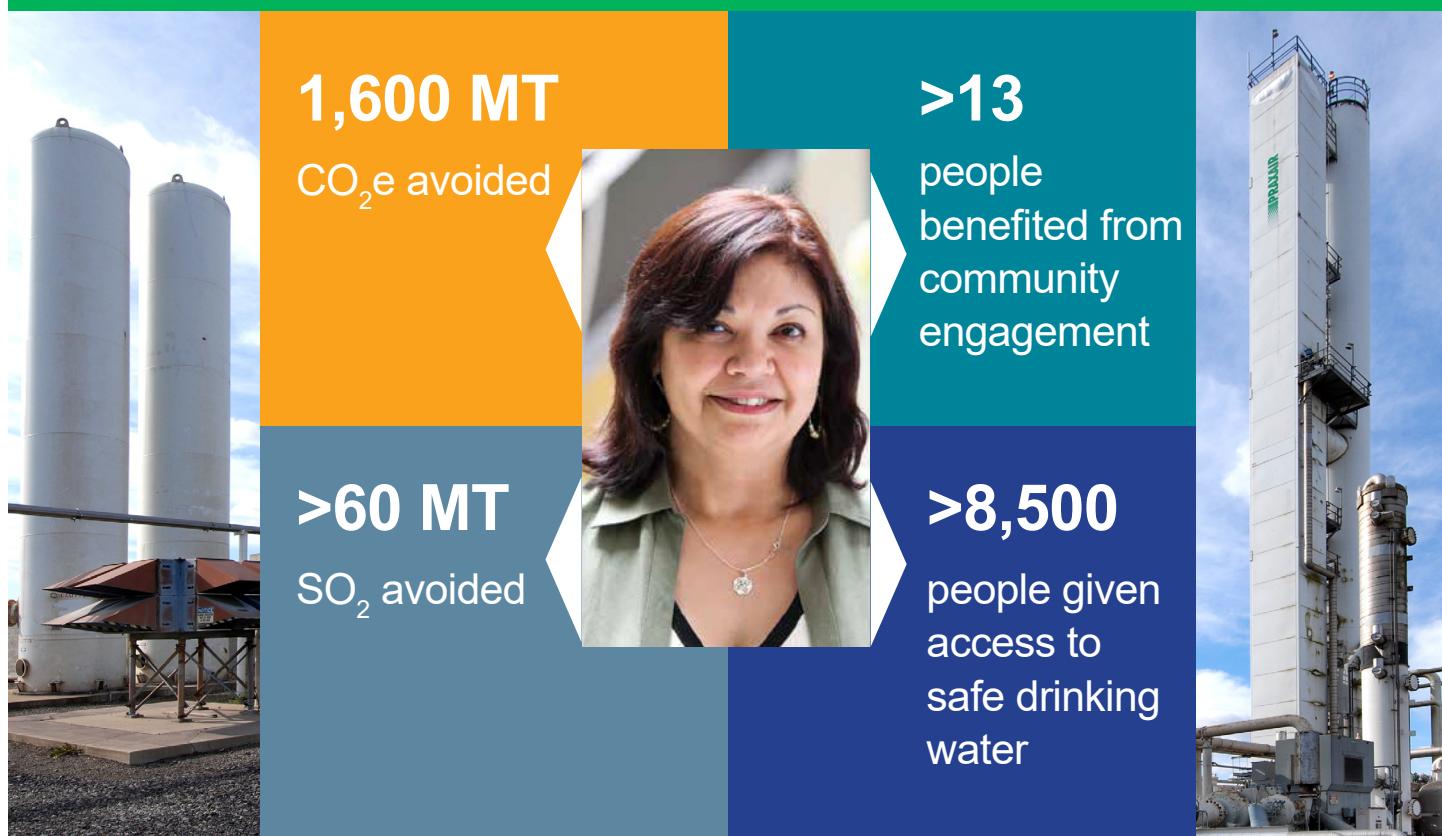
Sustainable Value Creation Per Employee 203-1

Praxair's mission is *making our planet more productive.* This *Sustainable Value Report (SVR)* shows how we execute on this mission. We seek to drive financial results and also create sustainable value. Throughout this report, we show how Praxair creates "net positive" impacts by putting more value back into society, the environment and the economy than what we take out.

Importantly, Praxair's business model is local in most of its markets. Our businesses each have a strong regional and country identity, including local management, employees and suppliers, and are embedded in their communities, typically for the long term. This image shows the range and scale of Praxair benefits can be shown on a per employee basis, while also recognizing employee contributions to Praxair's business value creation.
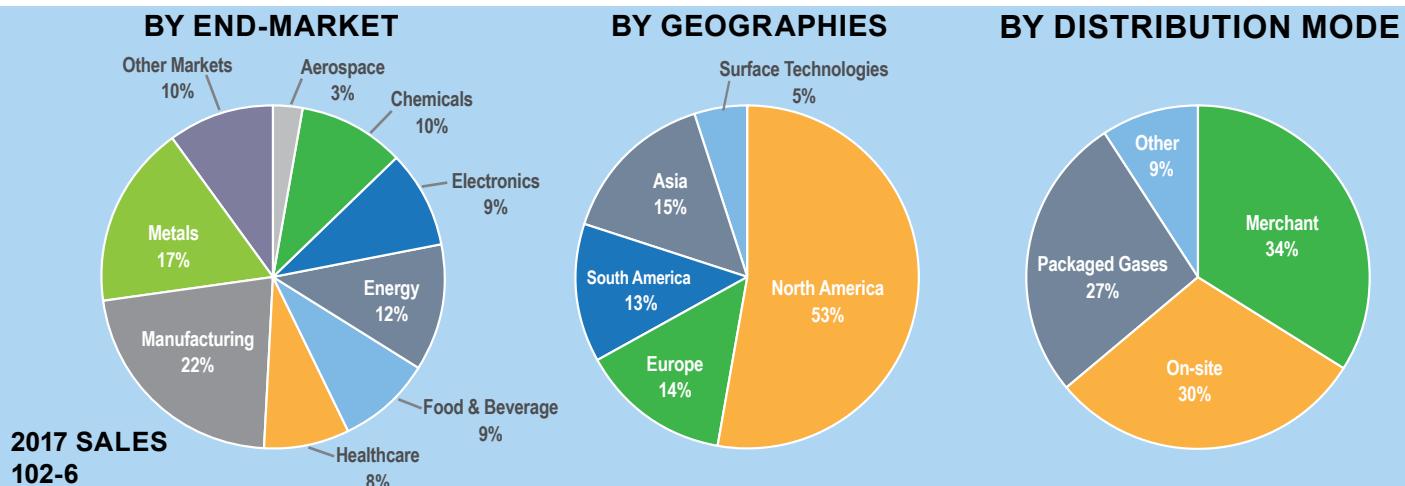
Praxair Employees Enable Net Sustainable Development Value

In 2017, each employee enabled the following net sustainable value creation:

1,600 MT
CO_2e avoided

>13
people benefited from community engagement

>60 MT
SO_2 avoided

>8,500
people given access to safe drinking water

*Calculation method: **CO2e avoided** was calculated by taking total GHG avoided by use of a subset of Praxair products and technologies (69 Million MT CO2e), minus its total GHG emissions (25 million MT), which is 44 million MT CO2e avoided. This was divided by the number of employees (2017: 26,461). **SO2 avoided** took the total SO2 avoided by the use of Praxair hydrogen to make Ultra-Low Sulfur Diesel (1.6 million MT SO2) minus Praxair total 2017 SO2 emissions (105 MT), divided by the number of employees. Praxair **water treatment applications** provided benefits to more than 230 million people. We subtracted the number of people that would consume the equivalent of Praxair's net fresh water use (67 million cubic meters) and divided by total employees. **Community engagement net benefits**: Our 2017 employee volunteerism brought direct benefits to more than 355,000 beneficiaries around the world, or more than 13 beneficiaries per employee.

ABOUT PRAXAIR

BY END-MARKET

Other Markets 10%
Aerospace 3%
Chemicals 10%
Electronics 9%
Metals 17%
Energy 12%
Manufacturing 22%
Food & Beverage 9%
Healthcare 8%

2017 SALES
102-6

BY GEOGRAPHIES

Surface Technologies 5%
Asia 15%
South America 13%
North America 53%
Europe 14%

BY DISTRIBUTION MODE

Other 9%
Packaged Gases 27%
Merchant 34%
On-site 30%

Business Model and Strategy 102-2

Praxair, Inc. is a leading industrial gas company in North and South America and one of the largest worldwide. With market capitalization of approximately $40 billion and 2017 sales of $11 billion, the company employs more than 26,000 people globally. Praxair produces, sells and distributes atmospheric, process and specialty gases, and high-performance surface coatings. Our products, services and technologies are making our planet more productive by bringing efficiency and environmental benefits to a wide variety of industries, including aerospace, chemicals, food and beverage, electronics, energy, healthcare, manufacturing, and primary metals. For more information, please visit our website at www.praxair.com.

Praxair's business model is to transform air and other process gases into products and applications that in many cases help customers become more energy and resource efficient, or provide a social benefit.

Praxair oxygen helps steelmakers save energy, allows sustainable aquaculture to thrive and serves hundreds of thousands of patients needing respiratory oxygen. Our hydrogen helps oil refiners to make ULSD and helps improve air quality thereby improving the environment and human health. Praxair high performance surface coatings help improve energy efficiency in jet engines and machine turbines. Praxair's business success depends on its unrelenting focus on its business model, strategy and key priorities, which are closely aligned with the company's core values and its mission to make the planet more productive.

102-16 Sustainable development is integrated into Praxair's mission, values, policies, strategy and operations. It complements the financial focus of company operations and focuses on the non-financial drivers of long-term business success: Praxair's values of safety, integrity, operational excellence, customer satisfaction, diversity and inclusion, and environmental and social responsibility. To do this, Praxair systematically monitors and prioritizes business risks and opportunities in these non-financial areas. The company also develops related policies, programs, non-financial key performance metrics (KPIs) and targets to manage these risks and optimize opportunities. Sustainable development performance targets cover

all Praxair businesses and corporate functions, as well as relevant relationships with suppliers and contractors and multiple third parties such as customers, universities, NGOs and community groups. Performance over the last year against all of these targets is reported annually to the Praxair Board of Directors Committee Technology, Safety & Sustainability as well as in this SVR and in related information in the SVR Annex and on Praxair's website.

The *Business Model* table on the following page describes Praxair's activities from Natural Capital Inputs (our raw materials) through investments in Manufactured and Intellectual Capital to a range of Outputs, Outcomes and Impacts that deliver sustainable development value to our customers, their customers and to the planet.

Inputs & Activities
Atmospheric gases - oxygen, argon and nitrogen – are the highest volume of Praxair gases sold. Air, a renewable raw material, is the principal feedstock. This is separated through cryogenic air separation, which uses electricity. Process and specialty gases are the second highest volume sold. Hydrogen and carbon monoxide are produced mainly from steam methane reforming (that produces greenhouse gases as a byproduct), or by purifying byproduct sources. Carbon dioxide is sourced mostly as a byproduct and purified for sale. Helium is sourced mostly from certain helium-rich natural gas streams in the U.S. Acetylene is sourced mostly as a chemical byproduct but may also be produced from calcium carbide and water. Raw materials for the materials business are principally metals and metalloids.

Outputs
Praxair's "outputs" or applications serve a range of end-markets. Green colored cells denote some of Praxair's applications that bring environmental and social benefits. The use of oxygen for steelmaking, for example, improves steel quality while reducing costs and energy use. Blue cells denote other applications that bring only social benefits, like the use of oxygen for respiration, or helium in MRIs. White cells denote other significant applications that do not bring a direct environmental or social benefit or are not tracked separately.

Business Model 102-6

INPUTS	Product Stewardship	Managing environmental and safety aspects through the product life cycle from raw materials sourcing and supplier engagement to operations, distribution and customer use.						
	Raw Materials	Air and Electricity			Natural Gas or Industry Byproducts, Water (Steam)	Industry Byproduct, Natural Wells	Byproduct from Natural Gas Processing	Metals & Metalloids
ACTIVITIES	**PRODUCTS**	O_2	N_2	Ar	H_2	CO_2	He	Materials
	BUSINESS OPERATIONS	ATMOSPHERIC GASES			PROCESS & SPEC GASES			OTHER

OUTPUTS	2017 END MARKET (% revenue)	EXAMPLES OF SIGNIFICANT PRODUCT APPLICATIONS					Eco & Joint Eco- + Social Benefits Portfolio	Social Benefits Portfolio
	Manufacturing & Metals (39%)	Steel making, glass, non-ferrous metal processing	Inerting, metals processing	Welding, stainless steel production, window insulation	Heat treatment of stainless steel	Welding	Welding	
	Energy (12%)	Refinery processing			Diesel & gasoline reformulation	Replaces acids in industrial processes	Leak detection	Coatings
	Chemicals (10%)	Water treatment	Inerting, blanketing, purging		Manufacture of ammonia, methanol	Synthesis & separation	Leak detection	
	Food & Beverage (9%)	Modified Atmosphere Packaging (MAP), Aquaculture	Freezing, chilling, preservation			Cryogenic freezing / Beverage carbonation		
	Healthcare (8%)	Respiration	Cryopreservation				Medical gas, MRIs	
	Electronics (9%)		Inerting			Cleaning & inerting	Inerting	Electronics processing
	Aerospace (3%)	Fuel	Autoclave	Welding	Fuel			Coatings
	Other (10%)	Water treatment				Water treatment	Laboratories	Coatings

OUTCOMES	Examples of environmental, economic, and social benefits	Productivity, product quality						
		Human health and safety						
		Fewer emissions of NOx, SO_2, VOCs						
		More energy efficient industrial production		Fewer GHG emissions / More energy efficiency	Fewer black carbon and GHG emissions	Cleaner manufacturing	Fewer environmental releases	Improved product durability, Essential for Solar PV
		Cleaner drinking water / Medical O_2	Freezing + preserving food, medical samples		Better air quality	Water treatment & desalination	MRIs, LCDs, diving gases, airbags	Chrome cadmium replacement

IMPACT	DELIVERING SUSTAINABLE VALUE (see pages 8-17)

Outcomes

More than half of Praxair 2017 revenue was generated by applications that bring positive social and environmental benefits or "Outcomes." For example, a subset of Praxair applications enabled twice more GHG to be avoided by our customers than were emitted in all our operations. See Praxair Applications Enable >2X Carbon Productivity, page 5.

Impacts

Many "Outcomes" enable broader and longer-term "Impacts." Praxair is exploring ways to measure the extent to which these outcomes can be shown to support the UN SDGs. Praxair's value chain, showing how we minimize the negative impacts of resource use and maximize their positive impact, is provided on pages 12-15. Also see Praxair Employees Enable Sustainable Value on page 7.

Praxair Policies 102-11, 102-12, 102-16

Praxair's policies and position statements are provided at www.praxair.com. Praxair's "Business Integrity and Ethics Policy" and "Compliance with Laws Policy" establish the tone at the top and define what is expected of Praxair employees at all levels. Praxair's

Standards of Business Integrity (SBI) makes it clear that Praxair is committed to consistent, global high standards of ethical and responsible conduct in compliance with applicable laws in all the countries where it does business. A range of corporate policies cover issues from Product Stewardship to Human Rights. These reference and/or are aligned with relevant externally developed environmental, economic and social charters, and are maintained and updated as needed.

Praxair's environment, health, safety and security program is certified to the Responsible Care Management System® (RCMS). The company is a signatory of the new Responsible Care® Global Charter and its Six Elements. See the Product Stewardship section of our website: www.praxair.com. Praxair supports the Precautionary Principle as defined in Principle 15 of the Rio Declaration: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." Praxair uses a well-defined, science-based process for assessing and managing risks in the face of uncertainty.

VALUING IMPACT

"Total Impact Valuation", a 2018 report from The Conference Board , describes increased awareness among investors and other stakeholders that non-financial information is key to understanding a company's performance. "Total impact valuation" is the practice of quantifying and monetizing a company's economic, social, and environmental impacts to better understand the full extent of their impacts on society, which can in turn guide management decisions by identifying where to focus efforts on improving social value creation.

At Praxair, we felt that the concept of total impact valuation could help extend several of our initiatives in sustainable development. Praxair has an SD 2020 target that at least 50% revenue should be earned from its Sustainability Portfolio. The Sustainability Portfolio grew out of our Eco Portfolio that measured environmental benefits enabled by Praxair applications. Claims made for our Eco Portfolio were supported by environmental Life Cycle Assessments (LCAs). The next question was, how does one measure social impacts?

Many Praxair applications that bring environmental benefits also bring social benefits. For example, Praxair's hydrogen for Ultra Low Sulfur Diesel (ULSD) was developed to meet regulations requiring sulfur (SO_2) reductions from diesel fuels. Hydrogen is the key ingredient in crude oil refining that eliminates sulfur from diesel and gasoline emissions from vehicle tailpipes. This public policy outcome has been achieved: The air is cleaner and there are fewer incidences of health issues from pollution in regions with these regulations.

Praxair White Papers trace the environmental life cycle of Hydrogen production for refining, in relation to SO_2 and GHG emissions. These show environmental impacts for GHG and SO_2: how this application enables the avoidance of 6 times more than all Praxair Scope 1 GHG emissions; and 14,000 times more than all Praxair SO_2 emissions (2016 data). However, Praxair had not measured the social impacts that from hydrogen production.

Our new work in this area was informed by increasing interest from outside parties in the measurement and valuation of social and human capital. Once we moved to a combined environmental and social LCA, we wanted to work with a common quantitative

denominator and chose to work with monetary values. Both the WBCSD Social Capital Protocol (2017) and our own experience demonstrate that this is an imperfect science. Nevertheless, we pursued this research in order to amplify our understanding of the Praxair business model to include social benefits.

Also, in the development of its 5-year SD 2020 targets, Praxair's sustainability program included relevant global challenges and outcomes like the UN SDGs. As we discuss in the next section, we drew on work done by the GRI and WBCSD in the SDG Compass; and at the WBCSD to measure impacts as a result of inputs, activities, outcomes, and impacts. We felt that exploring total value impact valuation represents the latest evolution in this thinking and work. Our work was informed by The Social & Human Capital Charter.

We reached out to Villanova University's RISE program. They seek to integrate Social, Technology, Environmental, Economic and Political (their STEEP Model) to fully assess the life cycle impacts of a given project, process or product and to prepare a new generation of engineers to be development practitioners, equipped to confront the multi-dimensional complexities of development challenges as outlined in the SDGs. Praxair's proposal was accepted as an innovative project that would allow faculty and students to start to explore both these issues.

The RISE project measured a limited range of material inputs, activities, outcomes, outputs and impacts of producing hydrogen for ULSD. In all cases, they used publicly available external industry and government sources to establish dollar values for non-financial or pre-financial data: US OSHA for health and safety costs and avoided costs, for example; or US EPA for the social cost of carbon and for the social benefits of reduced hospital visits from reduced SO2-related pollution from cars and trucks.

Findings of this initial and preliminary work are presented in the graphic below. The calculated potential ~$0.6 billion economic investment & potential social and environmental costs were outweighed by potential economic, social and environmental benefits of ~$2.8 billion.

Praxair Goal PRODUCT STEWARDSHIP	2020 TARGET	SDG Target	SDG Goal
	Contribute >50% revenue from Sustainability Portfolio	Develop quality, reliable, sustainable and resilient infrastructure to support economic development and human well-being	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Inputs	Activities	Outputs	Outcomes	Impacts
Natural capital sourced: Natural Gas, Steam (not counted)	- $200 Million Financial, Human + Intellectual Capitals Invested: CAPEX, operations, salaries & benefits, employee training	- $400 Million Potential GHG emissions carbon social costs and tax costs; costs of safety incidents	+ $900 Million Sales from recovered vs. elemental Sulfur and sales of H2 for ULSD; avoided costs from injuries prevented; avoided GHG emissions and potential carbon social and tax costs	+ $1.9 Billion Social & Relationship Capital benefits: environmental + social health benefits from avoided SO2 + GHG

DELIVERING SUSTAINABLE VALUE

This section describes Praxair's Sustainable Development priorities and how these create value for its business as well as for society, the economy and the environment.

Praxair's Materiality Determination and SD 2020 Targets

Praxair embraces a high-performance culture and is proud of its strong track record of long-term sustainable value creation. The company's SD 2020 Targets identify six Priority Factors (PFs) and 24 related KPIs, each with performance targets. Icons are also provided in each case to denote value creation from relevant capitals of Integrated Reporting. Most of the targets run 2016-2020 and are metric-based, and most pertain to all Praxair operations worldwide.
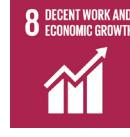
In setting its SD 2020 targets, Praxair undertook a materiality determination that is certified as conforming to AA1000APS (2008). The certificate is available on our website. This confirms that Praxair's PFs reflect material issues as determined in an extensive internal and external stakeholder engagement

process, and in addition are in general alignment with the Global Reporting Initiative GRI (G4), UNSDGs, RCMS, and Sustainability Accounting Standards Board (SASB) frameworks. Praxair does a less intensive materiality determination each year and makes appropriate adjustments which are reported in the "Confirming Priorities" on page 39. No adjustments were made in 2017.

These targets were accepted by Praxair's Executive Leadership Team in 2016 and subsequently accepted and endorsed by Praxair's Board of Directors Committee on Technology, Safety and Sustainability. This 2017 document reports Praxair's second full year of results against these targets.

The SD 2020 targets are provided in the image below. In addition, Praxair Surface Technologies (PST) has four targets to lower product toxicity, in the PF: Product Stewardship. Performance results for all targets for 2017 is provided in the Performance Dashboard starting on page 22.

SUSTAINABLE DEVELOPMENT TARGETS 2016-2020*

	SAFETY	COMPLIANCE	PRODUCT STEWARDSHIP	ENERGY & CLIMATE CHANGE	SUSTAINABLE PRODUCTIVITY	PEOPLE DEVELOPMENT
Priority Factors						
SD 2020 Targets	• Outperform ACC large member averages for recordable injuries • Outperform ACC large member averages for days away from work • <3 vehicle accidents per million miles driven**	• Maintain corporate governance Guidelines and a strong culture of integrity, ethics and compliance • 100% Certification Standards of Business Integrity by required employees • 100% Compliance Training by targeted employees • 100% review and close of reports to hotline • Uphold our Global Human Rights Policy & Standards	• Contribute >50% revenue from Sustainability Portfolio • Avoid >2X more customer GHG emissions than emitted from all Praxair operations • Enable safe drinking water for 250 million people	• Conserve 8 million MWh energy savings (cumulative 2009-2020) • Source >500,000 MWh renewable energy • 2% H2 GHG intensity improvement (cumulative) • 7.5% truck GHG intensity improvement (cumulative) • Plant or preserve 1 million trees with conservation groups	• Save $500 million from Sustainable Productivity (cumulative) • 100% water management plans at high water use sites in water-stressed regions • >300 sites achieve Zero Waste to landfill	• Achieve Top Quartile Employee Engagement results in the chemical industry • Continuously improve the representation of women globally and minorities in the U.S.A. • Spend $1.5 billion with women-, minority-, small business- and other disadvantaged group-owned enterprises, (cumulative) • 1,750 projects of Community Service (cumulative) • Benefit >1.5 million people from community engagement (cumulative)
Supporting the UN SDGs	3 GOOD HEALTH AND WELL-BEING	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	7 AFFORDABLE AND CLEAN ENERGY	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	8 DECENT WORK AND ECONOMIC GROWTH

*   All targets run 2016-2020 unless otherwise noted; performance results for 2017 are provided on pages 22-32. performance results for 2017 are provided on pages 22-32.
**   Target applies to employees and contract drivers

Praxair's SD 2020 Targets and the UN SDGs 102-12
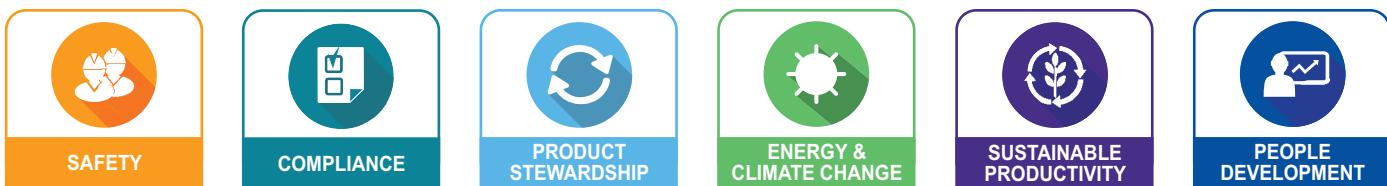
On September 25, 2015, governments around the world officially adopted a set of global goals to end poverty, protect the planet and ensure prosperity for all by 2030. These are called the Sustainable Development Goals (SDGs), see Figure 1: The UN SDGs. There are 17 global goals and 169 targets. They include goals such as ending poverty (SDG 1) and hunger (SDG 2); promoting good health and wellbeing (SDG 3); supporting decent work and economic growth (SDG 8); responsible production and consumption (SDG 12); and building peace, justice and strong institutions (SDG 16).

This agenda cannot be achieved by governments or companies or NGOs or individuals on their own. Praxair's SD 2020 Targets will guide our activity in these areas to 2020, and they will also help us contribute to solving some of the global challenges laid out in the SDGs. We show how what we do helps to meet global challenges by lining up our SD 2020 PFs with six SDGs (see Figure 2: Alignment of Praxair's sustainable development PFs and select SDGs).

Figure1: The UN SDGs. Praxair focuses on those goals that are highlighted

Praxair Non-Financial Priority Factors (PFs)

SAFETY | COMPLIANCE | PRODUCT STEWARDSHIP | ENERGY & CLIMATE CHANGE | SUSTAINABLE PRODUCTIVITY | PEOPLE DEVELOPMENT

UN Sustainable Development Goals (SDGs)

3 GOOD HEALTH AND WELL-BEING | **16** PEACE, JUSTICE AND STRONG INSTITUTIONS | **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE | **7** AFFORDABLE AND CLEAN ENERGY | **12** RESPONSIBLE CONSUMPTION AND PRODUCTION | **8** DECENT WORK AND ECONOMIC GROWTH
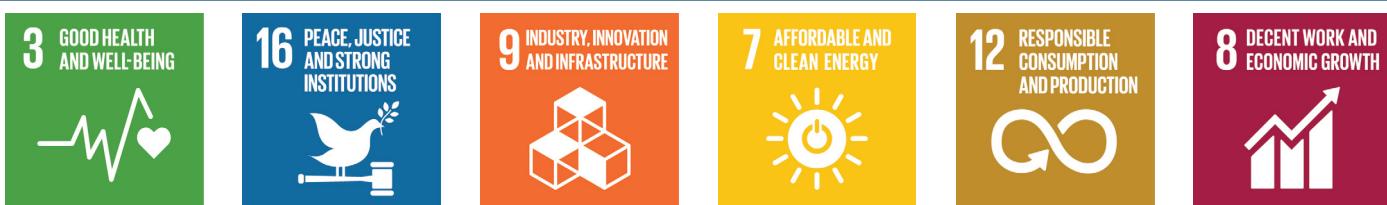
Figure 2: Alignment of Praxair's sustainable development priority factors and select SDGs

Contributing to the SDGs along Praxair's Value Chain

Praxair's illustration of how its applications can deliver more than two times the GHG benefits than are depleted in our operations is one example of how the company can contribute to global challenges such as those outlined in the SDGs. This target is placed within our efforts in Product Stewardship, which can contribute to SDG 12: Responsible Production & Consumption.

Overall, Praxair's actions can contribute to the SDGs at multiple points along our whole value chain, both by increasing our positive impact and minimizing potential negative impacts, see Figure 3: SD 2020 Targets & SDGs on Praxair's value chain.

In sourcing energy, we can show how our commitment to sourcing >500,000 MWh of renewable energy contributes to SDG 7: Affordable and Clean Energy. In selecting suppliers, Praxair's target to build capacity in minority suppliers will contribute to SDG goal 8: Decent Work and Economic Growth. For employees, we will maintain strong global standards of corporate governance, contributing to SDG 16: Peace Justice and Strong Institutions. In Operations, rigorous resource efficiency will lead to more than 8 million MWh in energy savings – equivalent to >5 million MT CO2e, contributing to SDG 12: Responsible Consumption and Production.

In distribution, the target to maintain fewer than three accidents per million miles can contribute to SDG 3: Global Health and Well- being. For customers, the innovation target to grow Praxair's sustainability portfolio can among other benefits, enable a quarter billion people to obtain clean safe drinking water and contribute to SDG 9: Industry, Innovation and Infrastructure. In our communities, the target to contribute cumulatively more than 1,750 community service projects, can contribute to SDG 8.

Praxair contributes to multiple SDGs, but the selection of six major SDG areas of focus is consistent with its business model and sustainable development strategy, priorities and targets.

For example, for Praxair's business model, its PF of Product Stewardship connects best to SDG 9: Industry, Innovation and Infrastructure. This PF includes three targets, one of which is to

SD 2020 Targets & SDGs
on Praxair's value chain
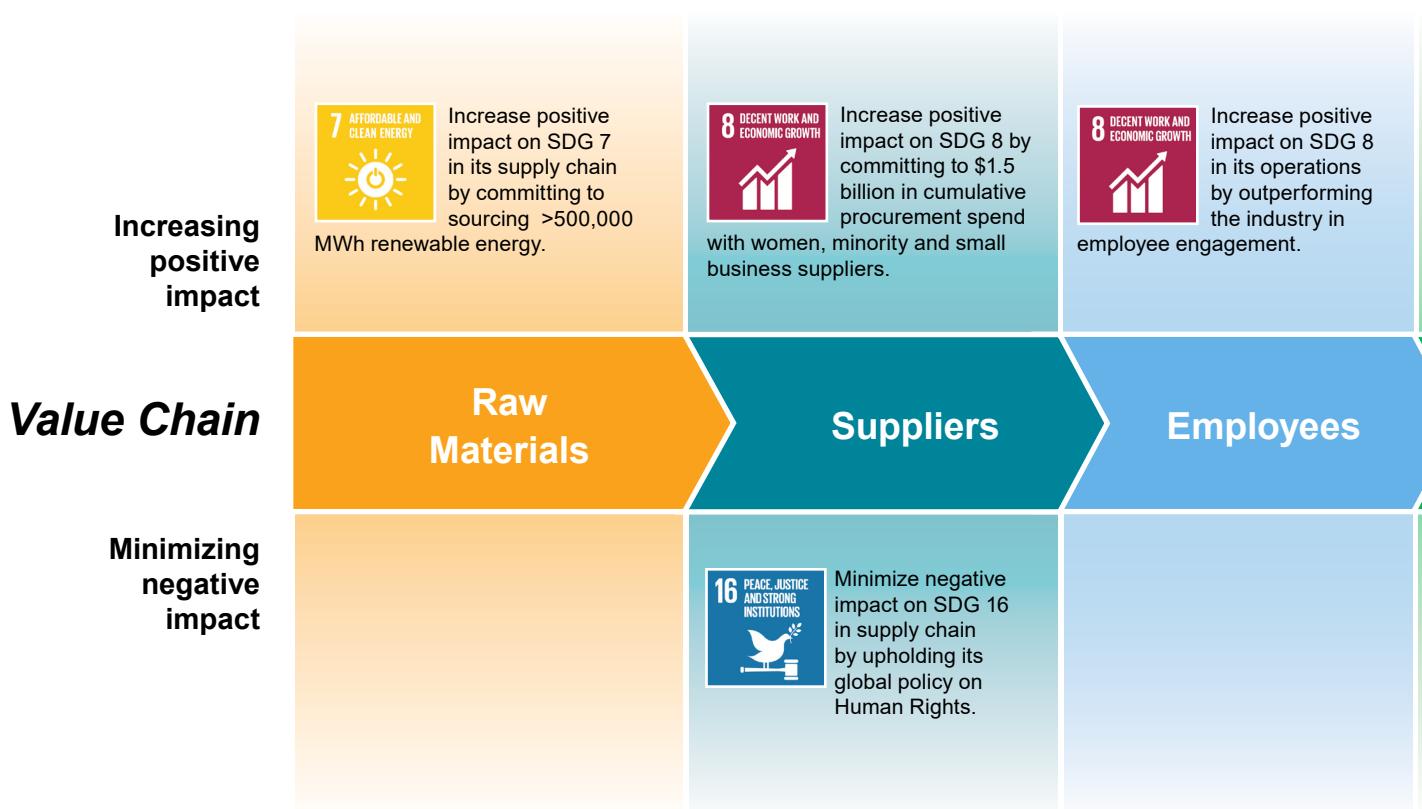
Figure 3: SD 2020 Targets and SDGs on Praxair's Value Chain. Image derived from "SDG Compass: The guide for business action on the SDGs," at www.sdgcompass.org, page 12: Mapping the SDGs against the value chain
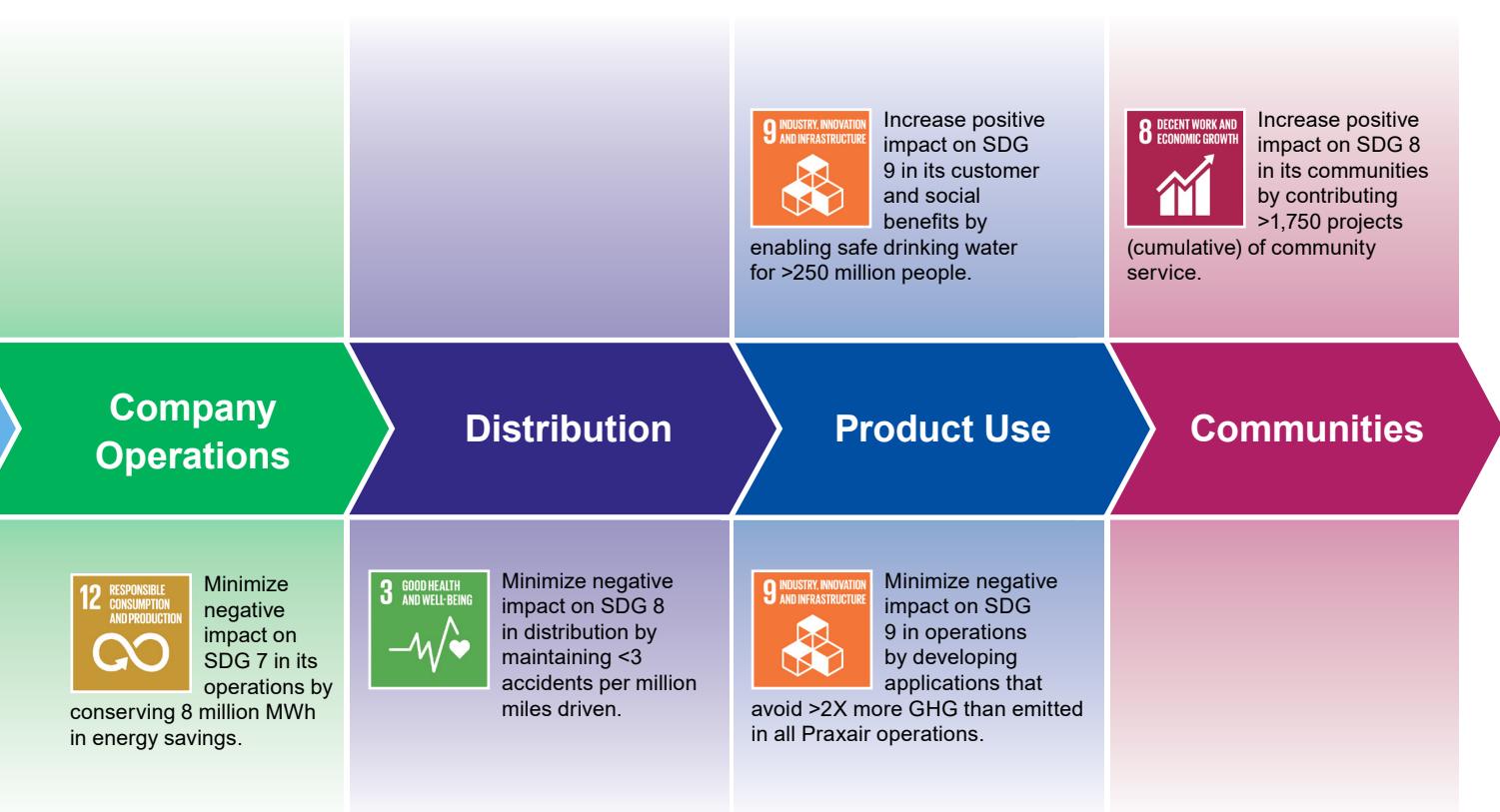
enable safe drinking water to be delivered to 250 million people. This target is a commitment from Praxair's water technologies, which offer gases and associated technologies for a wide range of applications including drinking water, wastewater, process water and food processing, see page 14. Taking just one application, oxygenation for aquaculture, the target also can contribute to several additional SDGs such as SDG 6: Clean Water and Sanitation for All; SDG 14: Life Below Water; and SDG 12: Responsible Consumption and Production.

Similarly, Praxair's PF in People Development lines up with SDG 8: Decent Work and Economic Growth and includes five targets. The target to improve global employee diversity lines up with SDG 8 and also lines up with SDG 10: Reduced Inequalities, as well as some sub-targets in SDG 16: Peace, Justice and Strong Institutions.

Delivering Sustainable Value & Impacts

The World Business Council on Sustainable Development (WBCSD) offers a methodology for *Measuring Socio-economic impact: A guide for business*. Their typology identifies and defines five steps towards impacts, starting with inputs (e.g. money spent) through activities (e.g. products or services, training provided) to outputs (e.g. volumes sold, people reached), outcomes (e.g. changes in the lives of the target population) and impacts (i.e. goal-level changes in the lives of the target population or future generations (with respect to factors such as health status, income level, educational level).

Whereas inputs, activities and outputs are clearly within the scope of the firm, the company's influence becomes less direct for outcomes and quite indirect for impacts. Impacts may be what matter most for society. The UN SDGs, global targets that will need multi-stakeholder participation, can take years to materialize and are difficult to measure and attribute to any one organization. Praxair used the WBCSD typology to show how its SD 2020 Targets can help contribute to the UN SDGs, i.e. can help deliver relevant sustainable development. Icons are also provided in each case to denote value creation from relevant capitals of Integrated Reporting.

Increase positive impact on SDG 9 in its customer and social benefits by enabling safe drinking water for >250 million people.

Increase positive impact on SDG 8 in its communities by contributing >1,750 projects (cumulative) of community service.

Company Operations → **Distribution** → **Product Use** → **Communities**

Minimize negative impact on SDG 7 in its operations by conserving 8 million MWh in energy savings.

Minimize negative impact on SDG 8 in distribution by maintaining <3 accidents per million miles driven.

Minimize negative impact on SDG 9 in operations by developing applications that avoid >2X more GHG than emitted in all Praxair operations.

SAFETY

Praxair Goal **SAFETY**	**2020 TARGET**	**SDG Target**	**SDG Goal**
	<3 Vehicle Accidents per million miles driven (employees and contractors)**	**Halve the number of global deaths and injuries from road traffic accidents**	**3 GOOD HEALTH AND WELL-BEING**

Leading by Example

INPUTS	**ACTIVITIES**	**OUTPUTS**	**OUTCOMES**	**IMPACTS**
• Safety: a core Praxair company value and top priority	• Continuous Board and executive review • Continued to embed safety into Praxair's culture, strategy and performance • Implemented comprehensive set of KPIs and targets, training and technology investment implemented for Praxair and contractors	• 41 hours average safety training per employee, 2017 • Global technology investment inside and outside trucks to promote safety • Investment in driver coaching to reduce critical events while driving • Outreach and safety training to local communities – emergency responders, schools, driver families	2017 • Praxair total product vehicle accident rate for preventable and non-preventable accidents held at world class level: 2.58 per million miles • 1.7% improved truck GHG emissions intensity and cumulative 5% from 2016-2017 • 30% reduction in Significant Safety events • 11 fewer people injured • Zero Lost Workday cases • Reduced claim expense on first party worker's comp. and third party auto liability incurred losses • Distribution productivity savings were $35.6 million and $940,000 in additional, or incremental, sales revenue	• Fewer human injuries from accidents • Lower health costs for drivers, their families and communities • Better air quality and related human and community health in regions where Praxair works and drives

** Covers product vehicle accidents (PVAs)

SUSTAINABLE PRODUCTIVITY

Praxair Goal SUSTAINABLE PRODUCTIVITY	2020 TARGET	SDG Target	SDG Goal
	SAVE $500 Million cumulative, from **Sustainable Productivity**	**Achieve the sustainable management and efficient use of natural resources**	**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

Leading by Example
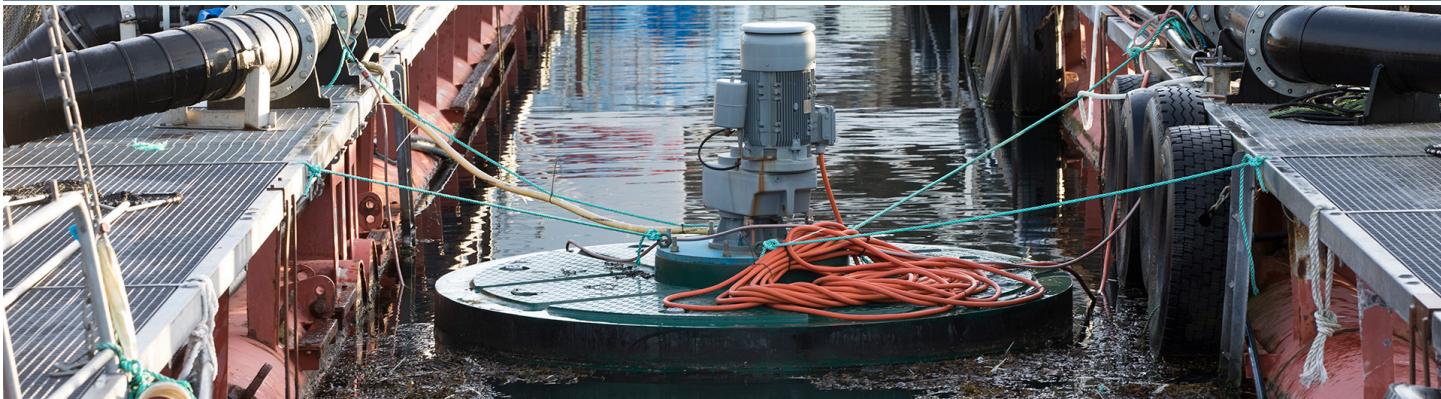
INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS

INPUTS

- A first pillar of Praxair's strategy is to optimize the base business, a hallmark of our culture and identity
- Business model consistent with resource productivity
- Praxair has developed a mature productivity organization

ACTIVITIES

- Proactively identified, measured and aggregated natural resource conservation opportunities (air, fuel, electricity, water, solid wastes and GHG)
- Calculated environmental savings, dollar savings and incremental value

OUTPUTS

2017
- >$117 million sustainable productivity savings
- Nearly 2,000 projects that avoided 600,000 MWH, 3 million lbs of hazardous waste, 450 million gallons of water and 375,000 MT CO_2e

OUTCOMES

2017
- 26.8% productivity from sustainable productivity
- $16.7 million incremental revenue
- 60.9% replication rates vs 40% in general productivity – both best ever results for Praxair
- Contributed to Praxair's historically strong 2017 operating margin and return on capital
- Competitive advantage: has become part of Praxair's culture and intellectual capital

IMPACTS

Cumulative 2010 - 2017 contribution to community health local to our facilities: 13,300 projects avoided:

- >3.1 million MT CO_2e (equivalent to the energy use of >330,000 U.S. homes in one year or three times that of China)
- 1.8 billion gallons of water, equivalent to the annual water use of nearly 50,000 people in the U.S. or 380,000 people in China

Scalable impact:
- Represents a projected $1 billion gross sustainable productivity savings 2010 -2020, with related community health and environmental benefits

PRODUCT STEWARDSHIP

Praxair Goal PRODUCT STEWARDSHIP	2020 TARGET	SDG Target	SDG Goal
	Enable delivery of **SAFE DRINKING WATER FOR** **250 Million** people	Develop quality, reliable, sustainable and resilient infrastructure to support economic development and human well-being	**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE
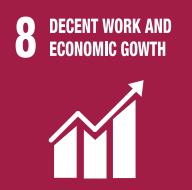
Leading by Example

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS
• Praxair gases offer a wide range of applications for drinking water, wastewater and process water and food processing, all while maximizing treatment capacity, reducing VOC emissions and odors, and reducing costs	• O_2 for wastewater treatment reduces VOCs • CO_2 can reduce pH in water and wastewater • O_3/O_2 as environmentally preferable water disinfectant • CO_2 for desalination • O_3 for water quality improvement • O_2 for aquaculture • Digital innovation with AQSCAN® to improve remote management of wastewater	• VOC emissions reductions: U.S., EU • Reduce pH in water & wastewater: global • Water disinfection: U.S., Asia, South America, EU • Desalination: Spain, U.S. • Water quality improvement: global • Oxygenation for aquaculture	2017 • Enabled provision of safe drinking water to 230 million • Improved industrial water treatment, helping improve water quality + reduce environmental emissions, e.g. Spain; and food processing, e.g. Norway • SPAIN: Praxair Spain is helping wastewater treatment facilities with its remote AQSCAN® digital monitoring system. This helps to optimize the wastewater process, reducing costs or even improve the end product	• Scalable: Commitment to 250 million people – 3% of the projected global population in 2020 • SPAIN: Praxair Spain has more than 120 customers that use the AQSCAN system • The AQSCAN system can also help aquaculture farmers and potentially be used for other non-water applications that require remote monitoring, such as food freezing systems and certain combustion processes • GLOBAL: sustainable aquaculture helps meet growing global need for quality protein

PEOPLE DEVELOPMENT *

Praxair Goal **SUPPLIERS**	**2020 TARGET**		**SDG Target**	**SDG Goal**

SPEND

$1.5 Billion
with women-, minority-, small business- and other disadvantaged group-owned enterprises, cumulative, in the U.S.

Encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8 DECENT WORK AND ECONOMIC GOWTH

Leading by Example

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS

INPUTS

- Global procurement and supply chain programs are committed to sourcing responsibly and supporting diverse suppliers
- Multi-tier diverse spend reporting program; encouraging multiple tiers in supply chain to incorporate the use of and report spend with diverse suppliers
- Participants can receive accelerated payments for invoices outstanding; take advantage of Praxair's competitive interest rates
- Membership in regional and international councils that certify and facilitate development of diverse business enterprises

ACTIVITIES

2017
- Third year of Supply Chain (SCF) program in the U.S.
- Enhanced U.S. SCF program offering by introducing virtual payables, an alternative payment option to help with cash management
- Launched Tier 2 spend reporting program with U.S. Prime suppliers
- SCF programs in Brazil, Canada, China, India and Mexico, all with micro, small, medium and disadvantaged business enterprise participation
- Tier 1 diversity outreach, capacity building and productivity initiatives

OUTPUTS

- Globally, 9.3% of suppliers invited to participate in the SCF program offerings enroll with 52% qualifying representing >$100 million in procurement spend
- Partnering with regional and international councils that facilitate the development of diverse business enterprises and U.S. Prime suppliers, advanced capacity-building opportunities in supplier certification, safety and technical proficiency

OUTCOMES

2017
- Praxair enhanced its pre-qualification program for potential suppliers. This assisted Praxair's Global Procurement and Materials Management Department in identifying candidates for RFP's more efficiently, leading to a higher percentage of diverse suppliers providing proposals and ultimately being awarded contracts
- 76% of diverse suppliers on SCF, with whom Praxair spends > $500K, agreed that Praxair's SCF payment options were valuable to their business and allowed them access to cost-effective working capital

IMPACTS

2017
- Outreach to current diverse suppliers led to a capacity-building initiative around fleet growth and national certification for a woman business enterprise (WBE) in the transportation industry. Certification has cultivated additional WBE business in the industrial gas market
- 91% of diverse suppliers, identifying as working in the construction industry, agreed or strongly agreed that, with faster payments under SCF, they were able to reduce their reliance on high-cost financing and improved their cash flow

* This section responds to G4-EC9

COMPLIANCE

Praxair Goal **COMPLIANCE**	**2020 TARGET**	**SDG Target**	**SDG Goal**

Human Rights

Uphold Praxair's Global Policy & Standards

End abuse, exploitation, trafficking and all forms of violence against children everywhere

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Leading by Example

"I was thinking of my own daughter during the TAT training session and the program took on a personal meaning to me. I cannot believe how young some of these victims are and how easily they can be pulled into these human trafficking networks. It is my duty to help where I can," says **Steve Chouinard, Merchant and Operations Driver, Praxair Canada, Inc.**
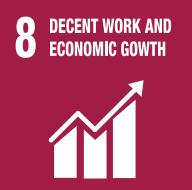
INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS

INPUTS

- Upholding Human Rights is consistent with Praxair values of Ethics and Integrity and its "Human Rights Policy"
- Each year, Praxair determines potential direct and indirect human rights risk
- Praxair drivers + contract drivers drive ~250 million miles each year
- In 2013, Praxair Brazil identified opportunity to take voluntary action to help stop the crime of sex trafficking along long-haul truck routes
- Since then, similar activity has been launched across Praxair Americas

ACTIVITIES

- Human Rights training provided each year to 100% of procurement managers, Praxair security organization; select managers
- Related training (e.g. in compliance, diversity, safety) to 100% employees
- Support provided to local NGOs that lead in combatting this crime
- Anti-sex trafficking training presents facts about the crime of sex trafficking and provides information on how to call an anonymous hotline if trainees witness a potential crime

OUTPUTS

- BRAZIL 2013-2017: Trained and certified 100% contract drivers (>1,000 people) to the Na Mão Certa program
- U.S. and CANADA: 2016-2018: Partnered with Truckers Against Trafficking (TAT) to extend training to these regions. Trained 100% drivers and contract drivers (>2,000 people)
- AMERICAS 2018: In response to request from TAT, training offered to 100% office employees in major offices (>1,000 people)
- MEXICO & CENTRAL AMERICA: 2018 program launch

OUTCOMES

SCALING UP

- Overall, trained >4,000 drivers, contract drivers and employees

BRAZIL

- Reputational value: award from Na Mão Certa

CANADA

- Translated TAT training into French Canadian
- Helped TAT understand the trucking landscape

IMPACTS

"Praxair has trained more than 4,000 employees and contractors across the Americas to be aware of the crime of human trafficking, especially around truck stops. Each one of those individuals - and their friends and family - bring additional eyes on the road. Together, we can help to combat human trafficking."
Kendis Paris, Executive Director, Truckers Against Trafficking

- Some contract drivers report having made calls to the hotline. These may have stopped some crimes*

* This number cannot be tracked. Calls are made anonymously. Drivers participate in this program voluntarily and may or may not report these actions to Praxair.

PEOPLE DEVELOPMENT

Praxair Goal COMMUNITY	2020 TARGET	SDG Target	SDG Goal
	BENEFIT **1.75 MILLION PEOPLE** FROM COMMUNITY ENGAGEMENT (cumulative)	Achieve full and productive employment and decent work for all women and men	**8** DECENT WORK AND ECONOMIC GOWTH

Leading by Example

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACTS

INPUTS

- Praxair Global Giving Program: Approximately $200,000 to sponsor welding training in Louisiana to match needs of the local communities and Praxair customers
- Since program inception in 2014, Praxair has provided more than $1.5 million in workforce development funding through the Praxair Skills Pipeline™ program
- Praxair businesses: in kind support: equipment, professional development, interview skills

ACTIVITIES

Provided training in welding and cutting processes:

- LOUISIANA: Partnered with Louisiana's Community & Technical Colleges System (LCTCS) to sponsor second phase of welding training
- Provided professional development and resume coaching
- Hosted career events with industry + hiring managers for career opportunities

OUTPUTS

- Collaborations with colleges in one-year accelerated programs
- LOUISIANA: 30 students completed training
- Professional development and equipment for instructors at each of three colleges throughout Louisiana
- Retention exceeds national average

OUTCOMES

Cumulative

- Students obtained new full-time jobs, several with Praxair customers, Praxair, or elsewhere in industry
- LOUISIANA: >225 welding credentials attained. Typical starting salary $40k for Louisiana students

IMPACTS

Cumulative

- >$20 million estimated increase in potential earnings over the new welders' lifetimes
- Improved quality of life for graduates' families
- Economic benefits to local communities
- Increased customer engagement
- Replicable: Praxair has expanded welding workforce development to other geographies and expanding the model to other skills areas

PERFORMANCE DASHBOARD 2017 G4-2
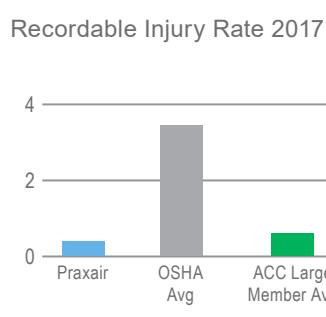
Detail on all these targets is provided in the section following

Priority Factors	SD2020 Targets	2017 Results	Status*
Safety	Outperform the ACC large member averages for Recordable Injuries	0.41, lower than benchmark: 0.48	✓
	Outperform the ACC large member averages for Days Away from Work	0.05, lower than benchmark: 1.12	✓
	<3 PVAs per million miles driven	2.58	✓
Compliance	Maintain Praxair's corporate governance guidelines and a strong culture of integrity, ethics and compliance	Created and maintained a strong ethical culture in every country where we operate	✓
	Ethics & Integrity: 100% certification to SBI by required employees	100% employees certified	✓
	100% Compliance Training by targeted employees	100% targeted employees trained	✓
	Integrity: 100% review and close of reports to Hotline	100% reviewed and closed	✓
	Human Rights: Uphold our Global Policy & Standards	No allegations of violations of Human Rights	✓
Product Stewardship	>50% revenue from Sustainability Portfolio	58%	✓
	Enable >2X net GHG benefit from applications	>2X net benefit achieved	✓
	Enable safe drinking water for 250 million people	230 million people	✓
	Lowering product toxicity	Achieved target to provide a sustainable alternative to cadmium plating; three target are on track related to eliminating hexavalent chrome containing slurries; and an additional target on track for replacing coatings with Strontium Chromate currently used in several SermeTel(r) & SermaLon(r) coatings.	✓
Energy & Climate Change	Conserve 8 million MWh of electricity cumulative 2009-2020 and 5 million MT CO2e avoided	Achieved a cumulative 5.5 million MWh electricity saved and 3.4 million MT CO2e avoided	✓
	>500,000 MWh renewable energy sourced	503,000 MWH sourced	✓
	2% hydrogen GHG intensity reduction, cumulative	-0.3%	✓
	7.5% trucking GHG intensity reduction, cumulative	5.0%	✓
	1 million trees planted /preserved with conservation groups, cumulative	520,000 trees planted or preserved	✓
Sustainable Productivity	Save $500 million cumulative, from Sustainable Productivity	$225 million saved	✓
	100% water management plans at high water use sites in water-stressed regions	58 sites identified, program rollout begun	✓
	>300 sites achieve Zero Waste to landfill	263 sites achieved	✓
People Development	Achieve top quartile employee engagement results in chemical industry	83% vs benchmark: 78%	✓
	Diversity: Continuous year-on-year improvement in the representation of women globally and minorities in the U.S.	• Global females: 25% (2016: 24%) • U.S. minorities: 19% (2015: 18%)	✓
	$1.5 billion spend with women-, minority-, small business- and other disadvantaged group-owned enterprises, (U.S.)	$311 million	✓
	Contribute 1,750 projects of community service, cumulative	433 Projects 2017 (cumulative: 806)	✓
	Benefit 1.5 million people from community engagement, cumulative	>355,000 beneficiaries 2017 (cumulative: 705,000)	✓

* Check marks ✓ denote that performance is on track to target, or target was achieved
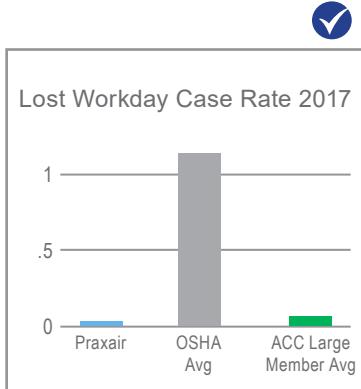
SAFETY
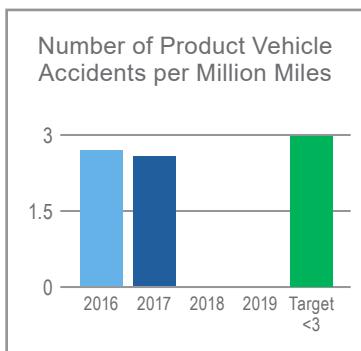
Recordable Injury Rate 2017

(bar chart: Praxair, OSHA Avg, ACC Large Member Avg)

## OCCUPATIONAL SAFETY – SD 2020 TARGET: OUTPERFORM THE ACC PUBLISHED LARGE MEMBER AVERAGE FOR RECORDABLE INJURY RATE (RIR)

Scope is all Praxair operations. Target is to annually outperform the ACC large industry average for recordable injury rate (RIR). Praxair achieved this target. Our 2017 RIR (the number of recordable injuries per 200,000 hours worked) was 0.41 (a slight increase from 0.39 in 2016) versus 0.57 for the ACC large member 2017 average and eight times better than the OSHA industrial average. Praxair reduced the number of Fatality Potential Events (FPEs) by 28% year over year and has experienced no employee or contractor fatalities in 2017. Additional employee and contractor safety results are provided in the *SVR Annex* section 403-2.

Lost Workday Case Rate 2017

(bar chart: Praxair, OSHA Avg, ACC Large Member Avg)

OCCUPATIONAL SAFETY – SD 2020 TARGET: OUTPERFORM THE ACC PUBLISHED LARGE MEMBER AVERAGE FOR LOST WORKDAY CASES

Scope is all Praxair operations. Praxair's target is to annually outperform the ACC large member average for Lost Workday Cases [LWCs, also called Lost Time Injury Frequency Rate (LTIFR)]. Praxair achieved this target. Our 2017 LWC Rate (the number of lost workdays x 200,000/total hours worked) was 0.05 (a 40% decrease from 0.07 in 2016), versus 0.11 for the ACC large member average and 20 times better than the OSHA industrial average. Additional employee and contractor safety results are provided in the *2016 SVR Annex* section 403-2.

Number of Product Vehicle Accidents per Million Miles

(bar chart: 2016, 2017, 2018, 2019, Target <3)

VEHICLE SAFETY – SD 2020 TARGET: MAINTAIN A RATE OF <3 PRODUCT VEHICLE ACCIDENTS (PVAS) PER MILLION MILES DRIVEN

Scope includes all Praxair and dedicated contract driver performance for all product delivery vehicles worldwide and includes both preventable and non-preventable accidents. Praxair's annual target is to have fewer than three product vehicle accidents (PVAs) per million miles driven. Praxair achieved this target. Our total PVA rate for Praxair globally in 2017 was 2.58 per million miles, a 3% decrease from 2.66 in 2016. The rate for Praxair drivers was 3.32 (2016: 3.57), and the rate for contract drivers was 1.92 (2016: 1.82).

We aggressively implement technologies and training to improve driver performance, even while we recognize that approximately 50% of our total vehicle accidents are considered "non-preventable," meaning our driver acted defensively and did everything possible to avoid the accident. As a general matter, the rates of road traffic deaths in middle and low income countries continue to increase, and high income countries, including the U.S., have seen this rate start to rise after decreasing for decades. These broader trends, particularly the increase of accidents due to distracted driving, could impact our total vehicle accident rate. Please see *Delivering Sustainable Value*, page 12, and *SVR Annex* section 403-2 for more information.

LEGEND

All targets are 2016-2020 unless otherwise stated.

Externally audited information. For audited data reported here normalized vs. baseline, the audit was performed on the underlying net value. Auditor's report is provided in the SVR Annex.

⬚ COMPLIANCE

CORPORATE GOVERNANCE – SD 2020 TARGET: MAINTAIN PRAXAIR'S CORPORATE GOVERNANCE GUIDELINES AND A STRONG CULTURE OF INTEGRITY, ETHICS AND COMPLIANCE

Praxair's global SBI and "Compliance with Laws and Business Integrity and Ethics" policies apply to Praxair's Board and to all employees of Praxair and all subsidiaries, affiliates, partnerships and other business organizations over which Praxair has control, including majority-owned joint ventures. In business ventures in which Praxair is involved, other than those over which it has control, Praxair shall exercise its power and authority as a shareholder or participant to attempt to cause this policy to be adopted and implemented. Praxair contractors, suppliers and service providers must ensure compliance with "Praxair's Business Integrity & Ethics" policy.

Praxair met this target. High integrity is a corporate value: We continually reinforce the high global standards upon which our reputation has been built, including honesty, ethical conduct and full compliance with the law. Praxair's Board considers it crucial that Praxair maintains a strong global compliance program and culture. Annually as part of its Strategic Business Objectives review, the Board confirms that Praxair has "Maintained world-class standards in …, global compliance." The annual payout of variable compensation is impacted by non-financial performance in these areas. The Board Audit Committee oversees Praxair's compliance with legal and regulatory requirements. The Chief Compliance Officer reports both to the General Counsel and to the Audit Committee of the Board. The Board Audit Committee annually reviews the effectiveness of Praxair's compliance with laws, business conduct, and integrity and ethics programs. It assesses the performance of the Chief Compliance Officer, of the compliance organization, which is comprised of 28 compliance champions and determines whether resources are sufficient.

ETHICS & INTEGRITY – SD 2020 TARGET: 100% CERTIFICATION TO PRAXAIR'S STANDARDS OF BUSINESS INTEGRITY BY REQUIRED EMPLOYEES

SBI certification is administered to all required employees, i.e. (A) all employees with high levels of accountability and responsibility for making policy, approving contracts, budgets, etc., e.g. officers, directors, business leaders, high level managers; (B) those professional and managerial employees who interpret policy and manage or administer policy and programs, including financial, safety and environmental, human resources, legal, tax, accounting, accounts payable and receivable, procurement and contract development, etc., (includes all exempt employees); (C) administrative employees who assist in the administration of policy, including financial, safety and environmental, human resources, legal, tax, accounting, accounts payable and receivable, procurement, and contract development, etc. (includes non-exempt salaried employees such as an administrative assistant working in HR, safety, security, finance, procurement, etc.); and (D) other employees not included above, who provide production, distribution, or similar work where there is minimal exposure or opportunity for non-compliance with Praxair's Business Integrity Standards (this category includes unionized employees and hourly paid employees). All employees in categories "A", "B", and "C" above must annually certify SBI compliance, except where law or regulation prohibits inclusion.

In 2017, Praxair met this target. One hundred percent of required employees certified that they have understood Praxair's "Compliance with Laws and Business Integrity and Ethics" policies. Certification is achieved annually for Praxair's SBIs and biennially to additional related areas. In 2017, additional training covered Doing Business with the Government, Complying with Competition Laws, Understanding the Foreign Corrupt Practices Act, and Best Practices for Email and Written Communications.

In addition, Praxair requires that 100% of relevant third parties whose activities could expose Praxair to risk adhere to its SBI and "Compliance with Laws and Business Integrity and Ethics" policies, and imposes contractual and training requirements to ensure adherence.

ETHICS & INTEGRITY – SD 2020 TARGET: 100% COMPLIANCE TRAINING BY TARGETED EMPLOYEES

Scope is all employees in categories "A" and "B" above must complete the biennial training, except where law or regulation prohibits inclusion. In 2017, we rolled out this training and 100% of categories "A" and "B: were trained. Praxair met this target. Training included four core modules: (i) Doing Business with the Government; (ii) Complying with Competition Laws; (iii) Understanding the Foreign Corrupt Practices Act; and (iv) Best Practices for Email and Written Communications.

Completing each module takes an average of 45 minutes and includes questions with increasing levels of difficulty. In addition, Praxair has provided additional compliance training in: (i) Government Permits; (ii) Antitrust-Competitors and Key Customers; (iii) Anti-Bribery "Incentives and Benefits;" and (iv) Social Networking – Information Exposure. Also, Praxair has provided Trade compliance training to the procurement and other groups with potential exposure to import and export related activities. All the above mentioned training is delivered through our Learning Module System (LMS) for employees located in Europe (except Russia), Canada and in the U.S.; and face-to-face for employees located in Asia, Mexico and Central America, South America, Russia, and in the Middle East countries.

Praxair's international operations are subject to the risks of doing business abroad and international events and circumstances, as well as governmental regulations in the U.S. and other countries where Praxair operates that may adversely impact its business, financial position or results of operations. Noncompliance with laws, including those designed to cover securities laws, antitrust, tax and currency controls, safety and environmental protection laws and regulations could result in penalties or sanctions that could have an adverse impact on the company's financial results and/or reputation.

ETHICS & INTEGRITY – SD 2020 TARGET: 100% REVIEW AND CLOSE OF REPORTS TO THE INTEGRITY HOTLINE

Praxair's anonymous and confidential third-party Integrity Hotline is available 24/7 in all countries for employees or external parties to report activity that they feel might contravene Praxair policies. Calls into the hotline need to be closed out within 30 days to the satisfaction of Corporate Security. This includes allegations that meet the threshold of Praxair's policy retaining to the handling of complaints relating to accounting, internal controls, auditing and certain other matters; allegations of violations of SBI; government inquiries or investigations; environmental issues reportable under the Praxair environmental reporting format; and any other compliance issue deemed to be of significance by the region Compliance Review Board (CRB). Status is reported quarterly into a dashboard of the corporate CRB. Target is to have 100% of the reported issues reviewed and closed, which Praxair achieved. Also, Praxair has a non-retaliatory policy to issues raised through any of our integrity hotline channels (including issues raised directly to management). Each year, Praxair provides a summary of the incidents and substantiated issues to the Integrity Hotline on its website at www.praxair.com.

HUMAN RIGHTS – SD 2020 TARGET: UPHOLD OUR GLOBAL POLICY & STANDARDS OF HUMAN RIGHTS
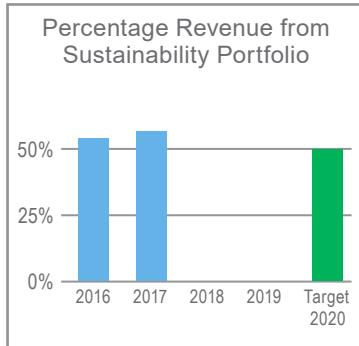
As a global business, Praxair is committed to responsible practices in all of the company's markets, communities and supply chains. Praxair's SBI, Human Rights Policy and related policies and operational standards, set a tone from the top. These standards and policies embed responsibility to respect human rights within the company's direct and indirect spheres of influence: in all business functions and regions, for employees, for the communities around Praxair sites, and among business partners. Praxair complies with all applicable national and international laws concerning human rights, social rights and labor rights, consistent with the principles of the Universal Declaration of Human Rights; referenced elements of the International Labour Organization's Declaration on Fundamental Principles and Rights at Work; and referenced elements of voluntary internationally recognized standards such as the OECD "Due Diligence Guidelines for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas." Praxair is also a signatory of the Responsible Care® Global Charter.

Praxair achieved this target in 2017. Praxair's "Human Rights" policy is signed by the CEO. It covers the themes of fair compensation and equal remuneration; working hours and conditions; prevention of discrimination and harassment; safety; freedom of association; prohibition of child or forced labor; and complaint procedure and implementation. Many of these themes are part of Praxair's basic operational and supplier standards, have been put in place for decades, reflect Praxair's material risks, and are a clear part of Board responsibility and review. Clear action is outlined for business unit leaders and relevant corporate functions: Chief Compliance Officer and VPs of corporate Human Resources, Procurement, SH&E and M&A.

Praxair's Supplier Expectations require suppliers and business partners to act in accordance with internationally recognized standards and with Praxair's "Human Rights" policy and related policies: supporting "Combatting Trafficking in Persons," a "Conflict-Free Materials Supply", and the "UK Modern Slavery Act of 2015". Praxair is taking voluntary action in an area where the company has a unique opportunity to make a difference: combatting human trafficking along driver routes. For further information, see *Compliance: Human Rights* on page 20 and the *SVR Annex* sections 414-1 and 414-2.

Percentage Revenue from Sustainability Portfolio
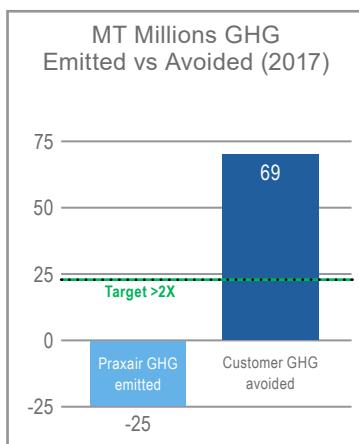
ENVIRONMENTAL INNOVATION – SD 2020 TARGET: CONTRIBUTE >50% REVENUE FROM OUR SUSTAINABILITY PORTFOLIO

Scope is all Praxair operations. Praxair's target is to annually earn more than 50% of total revenue from the company's Sustainability Portfolio. In 2017, Praxair earned 58% of revenue, or $6.6 billion, from the Sustainability Portfolio.

This target includes sales from Praxair's eco portfolio and social portfolio, which include applications that bring environmental and/or social benefits; please see *Business Model* page 9. 2017 sales from the eco-portfolio were $5.7 billion. For the eco portfolio, Praxair R&D has developed a simplified Life Cycle Assessment (LCA) based screening methodology to determine and update which applications are included. A simplified LCA includes part of the four stages of a product life cycle of raw material acquisition, manufacturing, use/ reuse/ maintenance and recycle/ waste management, i.e., it assesses one or two of the stages completely, or analyzes all four stages to lesser depth. Praxair evaluates 100% of products under development in depth in the first three stages, i.e., cradle to gate. For environmental impacts, we use Praxair's Environmental Key Performance Indicators (EKPIs): energy (electricity, natural gas and fuel), air emissions and direct and indirect GHG emissions; waste (hazardous and non-hazardous), water and Ozone Depleting Substances (ODSs). A 2018 methodology change now includes all hydrogen sales to refining. This accounts for the 4% increase over the 2016 result.

MT Millions GHG Emitted vs Avoided (2017)
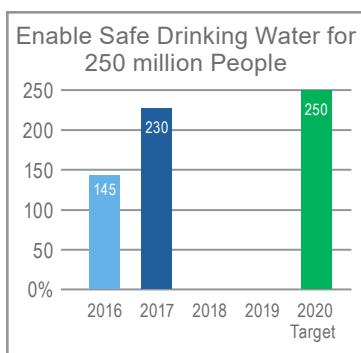
RESOURCE TRANSFORMATION – SD 2020 TARGET: ENABLE >2X MORE GHG TO BE AVOIDED PER YEAR THAN ARE EMITTED ALONG PRAXAIR'S VALUE CHAIN

Target is to annually demonstrate that a subset of Praxair applications enable customers or their end users to avoid more than twice the GHG emissions of all Praxair operations and relevant elements of its value chain, i.e. Praxair's combined Scope 1, 2 and 3 GHG emissions. Praxair achieved this target in 2017. A summary is provided on page 5: *Praxair Applications Enable More than 2X Carbon Productivity*. Scope is GHG benefits from a subset of Praxair applications that enable demonstrable GHG benefits. Reports the GHG avoided by customers and other end-users by a subset of Praxair applications versus the company's total GHG value chain footprint [Scopes 1 and 2, and those elements of Scope 3 that are relevant and calculated (see *SVR Annex* section 305-3 for Scope 3 data)]. The blue bar shows total Praxair 2017 GHG emissions were 24.1 million MT GHG: Scope 1 direct GHG emissions principally from hydrogen production: 7.8 million MT CO_2e; other sources include truck driving: 1 million MT CO_2e; scope 2 indirect GHG emissions mainly from air separation: 12.7 million MT CO_2e; Scope 3 emissions mainly from upstream fuel and energy related activity: 2.9 million MT CO_2e. An accounting of Praxair GHG sources and emissions is provided in the *SVR Annex* sections 305-1 through 305-5.

The green bar shows GHG avoided by Praxair customers and end-users that can be attributed to the use of a subset of Praxair applications. Five applications were evaluated: argon for welding and krypton for window insulation: avoided 2 million MT CO_2e; oxygen for steelmaking: avoided 10 million MT CO_2e; hydrogen used by oil refiners to make ultra-low sulfur diesel (ULSD) in trucks fitted with a diesel particulate filter: avoided 42 million MT CO_2e; and specialty coatings to make thermal barriers for industrial gas turbine and jet engine efficiency: avoided 14.6 million MT CO_2e. These five applications represent 12% of 2017 revenue and enabled 69 million MT GHG to be avoided. Praxair achieved more than a two times net GHG benefit, or 43.4 million MT CO_2e.

Methodology: See Praxair White Papers, available on [www. praxair.com](www.praxair.com). Also see *SVR Annex* for a breakdown of the benefits calculated. End-user avoided CO_2 emissions are calculated in accordance with ICCA guidelines. Avoided emissions arise from efforts by multiple partners along the respective value chains. Praxair's contribution has been characterized as fundamental in enabling the avoided emissions. See "Addressing the Avoided Emissions Challenge: guidelines from the chemical industry for accounting for and reporting greenhouse gas (GHG) emissions avoided along the value chain based on comparative studies", International Council of Chemical Associations, October 2003. http://wbcsdservers.org/wbcsdpublications/cd_files/datas/business-solutions/reaching-full-potential/pdf/E1%20CC%20LG%20guidance%20V3.pdf

Enable Safe Drinking Water for 250 million People

Year	Value
2016	145
2017	230
2020 Target	250

RESOURCE TRANSFORMATION – SD 2020 TARGET: ENABLE SAFE DRINKING WATER FOR 250 MILLION PEOPLE

Scope is all end-consumers served by Praxair clean water applications Target is to enable clean water to be received by 250 million people. This target is on track. In 2017, Praxair gases enabled clean, safe drinking water to be delivered to more than 230 million people (up from 145 million in 2016). The target measures people living in cities where Praxair ozone disinfects water to help make it potable, mainly in China; and where Praxair carbon dioxide aids in desalination, mainly in Spain and the U.S. Praxair calculates the number of end consumers based on market information about Praxair customers, e.g., city water utilities. UN demographic projections are used to project population growth.

Praxair has additional water applications that treat water and wastewater, typically for municipalities. These include a wide range of applications that treat and reuse process water, all while maximizing treatment capacity, reducing VOC emissions, improving safety and reducing costs. For further information, see *Delivering Sustainable Value* page 14.

PRODUCT STEWARDSHIP – SD 2020 TARGET: LOWERING PRODUCT TOXICITY

PST established a target that by 2017, it should provide a sustainable alternative to cadmium plating. The target has been achieved with a sustainable alternative to cadmium plating with qualification complete with several OEMs. Migration of this sustainable alternative to cadmium plating is in progress & Praxair is working with OEMs to accelerate. Praxair is working to have this alternative in place not just in the EU, where it is required by the 2006 regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), but globally. PST established three targets in relation to eliminating hexavalent chrome containing slurries. Prompted by requirements of REACH, the targets go beyond REACH in that they apply worldwide and will eliminate the toxic substances not just in Europe as required by REACH but everywhere.

PST has established three targets in relation to eliminating hexavalent chrome containing slurries. These were prompted by requirements of REACH, but go beyond REACH in that they apply worldwide and will eliminate the toxic substances not just in Europe as required by REACH but everywhere.

- By 2021, offer 100% chrome free slurry product alternatives to the market.
- By 2024: No sales of coating slurries that contain hexavalent chrome for which chrome-free alternatives have been developed and qualified by OEMs.
- By 2029: No sales of coating slurries that contain hexavalent chrome.

In addition to the three targets to eliminate hexavalent chrome containing slurries, PST expanded its focus & developed replacement coatings that are free of Strontium Chromate, a chemical that is currently used in several SermeTel(r) & SermaLon(r) coatings. PST is currently introducing these coatings to the major OEMs with a Jan 2019 sunset date for Strontium Chromate.

Environmental Innovation: Optimizing the Merchant Liquid Supply Chain

The cover of this report and the caption on the inside cover describe a Praxair innovation project in supply chain management. The Praxair Digital team, Praxair Information Technology Services Department and U.S. Industrial Gas business worked closely with supply chain management software vendor, Llamasoft, and a third party software developer, ASG, to create a new integrated production and distribution planning tool that enables significant variable cost and energy savings.

Process supply chains deal with chemical and/or bio-based networks that involve a set of entities, materials and information that use a range of processes to transform raw materials into final products. Managing these systems presents several challenges. In Praxair's case, electricity is the largest cost in the sourcing, manufacture and distribution of atmospheric gases, so optimizing electricity use is a major opportunity for cost and energy savings.
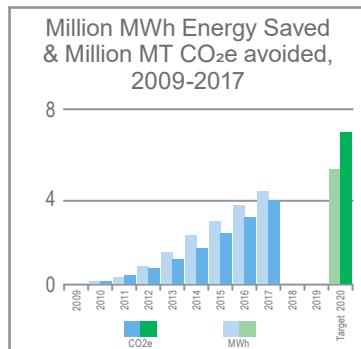
Our team faced several challenges in building a reliable large-scale optimization model that would determine optimum production and distribution plans on a continuous basis. All merchant liquid supply plants make the same basic set of products, but they often vary in capacity and efficiency. Customers may receive product from multiple locations; customer demand changes over time; electricity prices change depending on the time-of-day; delivery costs vary depending on time of day and routes. Planning tools, which should plan over a multi-week time horizon, must guide the operational tools designed for minute-to-minute optimization of the plants and logistics.

The planning tool developed by the team solved the optimization problem. They implemented a decision-making process that retained Praxair's commitment to reliability and quality while also realizing substantial variable cost savings in distribution as well as better electricity management and usage resulting in significant energy savings.

ENERGY & CLIMATE CHANGE

Million MWh Energy Saved & Million MT CO₂e avoided, 2009-2017
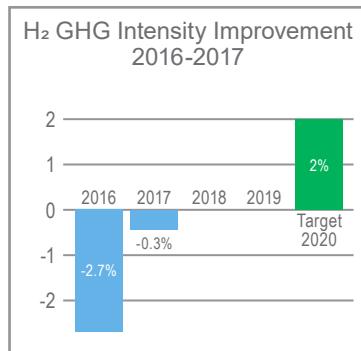
ENERGY & GHG EMISSIONS – SD 2020 TARGET: CONSERVE 8 MILLION MWH ELECTRICITY AND 5 MILLION MT CO₂E, 2009-2020

Scope is all Praxair operations. This long-term target is to achieve cumulative energy savings in excess of $500 million, 8 million MWh and 5 million MT CO_2e by 2020, from a baseline of 2009. Praxair is on track to meet this target. At the end of 2017, Praxair achieved a cumulative $410 million savings in energy efficiency, 5.5 million MWh electricity and 3.4 million MT CO_2e avoided. In 2017, natural gas savings were 1,900,000 million Btu; electricity savings were 1,250,000 MWh.
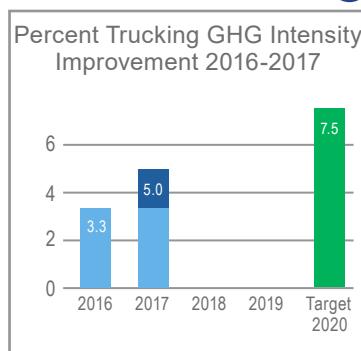
Air separation units (ASUs) account for 85% of Praxair's electricity use. To help Praxair achieve the target to save 8 million MWh of electricity by 2020, ASUs aim to improve their energy intensity by 0.7% annually. In 2017, Praxair achieved 1.8% improvement in ASU energy efficiency. See *SVR Annex* section 302-1 for information on Praxair's electricity consumption, section 302-3 Praxair's energy intensity and section 302-4 for energy reduction activities.

H₂ GHG Intensity Improvement 2016-2017

ENERGY & GHG EMISSIONS – SD 2020 TARGET: 2% HYDROGEN GHG INTENSITY IMPROVEMENT

Scope is all 22 Praxair hydrogen facilities worldwide. The target is to achieve a 2% improvement in GHG intensity by 2020. The target will not be achieved in a linear progression. Praxair took into account project startups over this period, and the implementation of projected technology innovations. In 2017, Praxair achieved a 2.4% improvement over 2016, resulting in performance at -0.3%, on track to achieve our target in 2020.
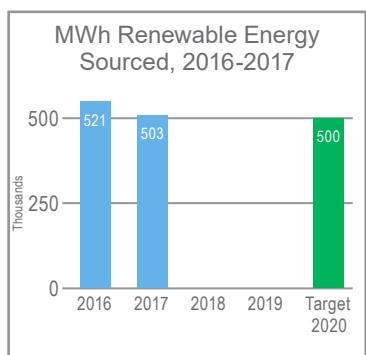
Praxair procures byproduct hydrogen wherever feasible. Its Freeport, TX, hydrogen facility will capture and recover by-product streams from Dow Chemical and provides high-purity hydrogen back to Dow and to other customers. The process produces on-specification hydrogen with higher recovery rates, less waste and lower emissions of CO_2. By recovering the by-product hydrogen rather than producing hydrogen from reforming natural gas, Praxair avoids 1.5 million MT GHG per year of direct GHG emissions. (Since Praxair is using the byproduct hydrogen, it is not available to Dow for use as a fuel, which means Dow will consume additional natural gas. If we take into account the additional natural gas consumption by Dow, the overall saving is 300,000 MT GHG per year.)

Percent Trucking GHG Intensity Improvement 2016-2017

ENERGY & GHG EMISSIONS – SD 2020 TARGET: TRUCKING GHG EMISSIONS INTENSITY

Scope is all Praxair driving operations where the driver is a Praxair employee. The metric combines bulk and packaged gas. The target is calculated by multiplying the number of miles driven and fuel used in each geography by GHG emissions factors and dividing by product volume delivered. The target is to improve the GHG intensity of trucking 7.5%, 2016-2020. Praxair is on track to achieving this target, achieving a 1.7% GHG intensity improvement year over year in 2017 and a cumulative 5.0% 2016-2017.
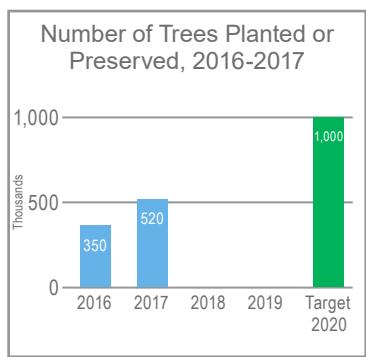
Results are achieved by investments in, training for safe and eco-efficient driving, on-board and remote monitoring technologies to improve driver safety and fuel efficiency, and in-cab technology to improve fuel use and reduce GHG emissions. In 2017, Praxair India introduced to its fleet delivery vehicles fueled by compressed natural gas (CNG) – for use at its packaged gas facilities in the cities of Faridabad and Chakan, which have well-established CNG distribution networks. In India, CNG costs 18% less in comparison to diesel. In addition, combustion of natural gas engines produces 20% less GHG emissions than Diesel and up to 50% less noise.

MWh Renewable Energy Sourced, 2016-2017

Thousands

|				
521	503			500
2016	2017	2018	2019	Target 2020

(Y-axis: 500, 250, 0)

RENEWABLE ENERGY – SD 2020 TARGET: SOURCE > 500,000 MWH FROM RENEWABLE ENERGY

Scope is all Praxair operations. Target is to directly source more than 500,000 MWh of renewable energy annually through 2020. This target was achieved for 2017. Praxair sourced 503,000 MWh renewable energy, 84% hydro in New York State, and smaller quantities in Mexico and Brazil; 15% wind power in India, and 1% solar. Praxair's direct renewables sourcing is equivalent to installing about 100 wind turbines. Direct sourced renewable energy represents about 2% of all Praxair energy use.

In addition, Praxair sourced about 31% renewable energy indirectly through the energy mix provided from its utilities. Further information is provided at Energy and Climate Change on page 24, in Praxair's White Paper: *Doing More with Less: Praxair Energy Efficiency at* http://www.praxair.com/our-company/sustainabledevelopment/white-papers, and in GRI G4-EN3.

Number of Trees Planted or Preserved, 2016-2017

Thousands

350	520			1,000
2016	2017	2018	2019	Target 2020

(Y-axis: 1,000, 500, 0)

CARBON OFFSETS - SD 2020 TARGET: 1 MILLION TREES PLANTED OR PRESERVED WITH CONSERVATION GROUPS

Scope is all Praxair operations. Praxair's target is to plant or preserve one million trees (2016 – 2020). In 2017, Praxair planted 170,000 trees through employee engagement programs and with environmental conservation groups that received funding from the Praxair Global Giving Program, including The Nature Conservancy and the Arbor Day Foundation. Cumulatively 2016-2017, this is 520,000 trees planted, on track to achieve target.

This contribution of planting and preserving trees provides multiple social, economic and environmental benefits. Praxair's Greenway Project was designed as an employee engagement tool, to multiply the environmental value created by Praxair's employee Zero Waste to Landfill (Zero Waste) program. Praxair's Global Giving Program provides a "match" per waste avoided from Zero Waste sites to amplify the sustainability benefits provided to the company by the employee Zero Waste program. See "Environmental Engagement" at www.praxair.com.
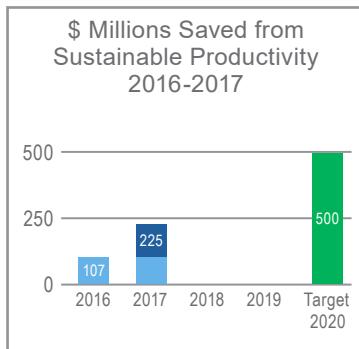
TREES FOR HOUSTON, the Arbor Day Foundation and Praxair partnered to plant 28 trees in The Woodlands. These trees will beautify the campus and provide shade for students. Trees For Houston provided trees and planting logistics and Praxair provided volunteer labor. This project was important to the school and surrounding neighborhood, creating a healthier environment for students and faculty to enjoy.

BY THE NUMBERS:

28 TREES PLANTED

15 VOLUNTEERS

cedar elm • crapemyrtle • loblolly pine • magnolia • Mexican plum • fringe tree • live oak
TREE SPECIES

$1,086 VALUE OF VOLUNTEER TIME

IMPACT OVER 50 YEARS

7,126,401 gallons RAINFALL INTERCEPTED

642,168 lbs. CARBON SEQUESTERED

SUSTAINABLE PRODUCTIVITY

$ Millions Saved from Sustainable Productivity 2016-2017
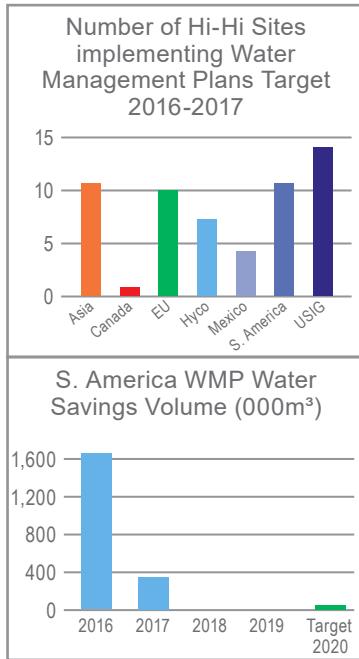
PRODUCTIVITY SAVINGS – SD 2020 TARGET: SAVE $500 MILLION (CUMULATIVE) FROM SUSTAINABLE PRODUCTIVITY

Scope is all Praxair operations. Measures productivity projects that bring financial and environmental savings in Praxair's EKPI areas. Praxair's target for sustainable productivity is a cumulative savings of $500 million, 2016- 2020. In 2016, the program achieved savings of more than $107 million, cumulatively $225 million from 2016 and is on track to reach $500 million by 2020.

From the inception of this program in 2010 to the end of 2017, 13.282 projects saved more than $800 million, and avoided more than 4.9 million MWh, 3.1 million MT CO2e and 7.1 million cubic meters of water. Energy efficiency projects alone saved more than $470 million. The bulk of the company's energy efficiency investment goes towards improving turbines, compressors, fans and other primary process equipment, as well as heat transfer efficiency and control equipment. For additional details, see Sustainable Productivity page 17.

Number of Hi-Hi Sites implementing Water Management Plans Target 2016-2017

S. America WMP Water Savings Volume (000m³)

ECO EFFICIENCY – SD 2020 TARGET: HI-WATER USE SITES IN WATER-STRESSED AREAS TO IMPLEMENT WATER MANAGEMENT PLANS

Scope is all Praxair global sites that are high water users in areas of high water stress as defined by the World Business Council on Sustainable Development (WBCSD) Global Water Tool (2015 version). We determined "high stress" to mean (1) that the baseline water stress was "medium to high," "high" and "extremely high." In addition, Praxair businesses are encouraged to use local determinants of water risk. The target is that all of these sites should develop water management plans (WMPs). The WBCSD tool identified 51 sites. SAWM included seven additional sites, bringing the total to 58 sites. Fourteen of these sites are in our U.S. Industrial Gas business; one in Canada; eleven in Asia; ten in the EU; four in Mexico; eleven in South America (including the seven voluntary sites); and seven HyCO sites (six in the U.S. and one in Peru). 2017 site numbers reflect two plant shutdowns since 2016 (China and Peru) and two startups (India and Belgium). Together these sites account for about 40% of all Praxair water use and 15% of production plants that report water use (Praxair reports water for all sites where monthly use exceeds 10,000 gallons/month). In the first year of this target, we focused on putting reporting systems in place, making technology investments, and increasing the frequency of reporting from annual to quarterly.

Praxair South America adopted a target to reduce of 1% absolute water volume by 2020. Their 10 sites represented one third of all water consumed in 2017 in that region. They achieved this target at the end of 2017, achieving an overall water reduction of more than 380000 M3 – an 11% reduction. Investments were made to re-use rainwater, condensate and water of liquid vehicles hoses thawing as make-up water at refrigeration towers. Also see *2016 SVR Annex*.

Number of Zero Waste Sites 2016-2017

ECO EFFICIENCY – SD 2020 TARGET: >300 SITES ACHIEVE ZERO WASTE TO LANDFILL
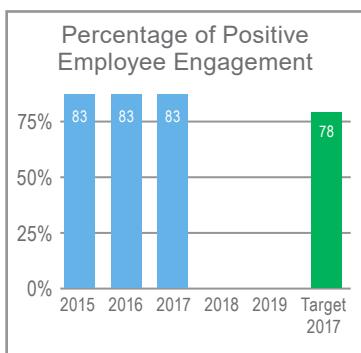
Scope is all Praxair operations. 2020 target is for >300 sites to achieve Zero Waste to Landfill. Praxair defines Zero Waste to Landfill as a site that diverts more than 90% process waste from landfill; this can include incineration for energy recovery.

At end 2017, 263 sites achieved Zero Waste to Landfill, putting Praxair on track to achieve target. Of these, more than 250 are significant sites, representing more than 40% of Praxair global significant operating facilities. Altogether, 418 sites participated, representing more than half of employees worldwide, and achieved an average of 95% waste diverted.

In 2017, more than 125 million pounds of waste were diverted from landfill. Cumulatively since 2011 the program has saved more than $1 million. Zero Waste to Landfill helps extend Praxair's mission and values promote circular economy practices. In many cases, the program brings social benefits to local communities, from education to job creation. In addition to Praxair facilities, seven regional headquarters offices have obtained external recognition for greening their offices, two in 2017: Praxair's Houston office (Hydrogen business) and Praxair Seoul (Korea) were both awarded recognition as Green Seal™ Green Office Partners.

PEOPLE DEVELOPMENT

Percentage of Positive Employee Engagement

Bar chart:
- 2015: 83
- 2016: 83
- 2017: 83
- 2018: —
- 2019: —
- Target 2017: 78

Y-axis: 0%, 25%, 50%, 75%

EMPLOYEE ENGAGEMENT – SD 2020 TARGET: ACHIEVE TOP QUARTILE EMPLOYEE ENGAGEMENT RESULTS IN THE CHEMICAL INDUSTRY

Scope is all Praxair employees as surveyed biennially. Target is to achieve top quartile employee engagement results in the chemical industry, as determined by major third party HR polling firms such as Willis Towers Watson. In 2015, Praxair surveyed 30% of its employees and achieved target, with an overall employee engagement index score of 83%, 5% higher than benchmark industry peers for the Global Chemical Companies Norm (2017). This result holds for 2015 and 2016. Praxair postponed its normal major employee engagement survey in 2017, as the pending merger discussion could have distorted findings and conclusions could not be acted on. For purposes of reporting a trend, we carry forward the 2015 results, as absent the merger there were no major changes that would have precipitated a significant change in this finding. A fresh baseline survey will be conducted after the merger period has closed, to measure employee engagement.

The survey used a five point scale and is in accordance with SASBs sustainability accounting standards for employee engagement percentage. It invited employee opinion on issues such as management, social responsibility, diversity in practice, and freedom to report. Employee engagement survey results are analyzed by gender and a number of factors. Results are reviewed by leadership; corrective actions are in put in place and conclusions and actions are communicated to employees.

Continuous Year-on-Year Improvement in Diversity (% Women and U.S. Minorities)

Bar chart (% Global Women / % U.S. Minorities):
- 2015: 23.7 / 18.04
- 2016: 24.5 / 19.1
- 2017: 24.7 / 19.6
- Target 2017: 24.5 / 19.1

Y-axis: 15, 20, 25

Legend: % Gobal Women, % U.S. Minorities

DIVERSITY & INCLUSION – SD 2020 TARGET DIVERSITY: ACHIEVE CONTINUOUS YEAR-ON-YEAR IMPROVEMENT IN THE REPRESENTATION OF WOMEN GLOBALLY AND MINORITIES IN THE U.S.
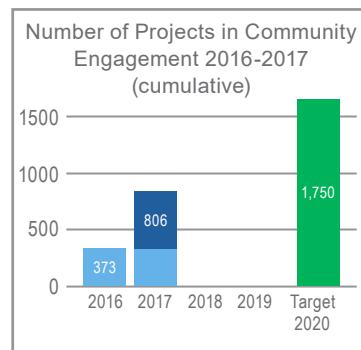
Praxair set aspirational goals for its exempt global female and U.S. minority populations and achieved both. The aspirational goals have 2015 as the baseline, with the objective of continuous improvement in diversity representation year over year. For 2017, the percentage of global females was 24.67% (2016: 24.53%). Executive leadership was 17% women (2016: 19%). For 2017, the percentage of U.S. minorities was 19.59% (2016: 19.06%). Within executive leadership, U.S. minorities were 42% in 2017 (2016: 43%). Further information is provided in the *2017 SVR Annex 4*05-1 "Diversity and Equal Opportunity."

Spend on Disadvantaged Group-owned Business, $ Millions

Bar chart (Millions):
- 2016: 311
- 2017: 623
- 2018: —
- 2019: —
- Target 2020: 1,500

Y-axis: 0, $400, $800, $1200

$ Revenue

SUPPLIER ENGAGEMENT – SD 2020 TARGET: SPEND $1.5 BILLION WITH WOMEN-, MINORITY-, SMALL BUSINESS-, AND OTHER DISADVANTAGED GROUP-OWNED ENTERPRISES, CUMULATIVE

Praxair is on track with this target: The company spent $312 million in 2017, including $262 million with small businesses, $42 million with woman-owned businesses (increase of 46% from 2016) and $8.1 million with minority-owned businesses (increase of 7% from 2016), which includes businesses with ownership identifying as ethnic-minorities or non-ethnic minorities such as LGBT or Persons with Disabilities. Praxair's procurement and supply chain programs are committed to sourcing responsibly and supporting the growth of diverse suppliers and local manufacturing. We continue to incorporate qualified diverse suppliers in a range of procurement opportunities and have expanded programs that help suppliers gain access to affordable financing options. Additionally, by leveraging subject matter expertise from our own employee base, we have been able to provide training needed to help our suppliers grow and strengthen their lines of business. Further detail is provided in the *2017 SVR Annex* 204-1 pp 17-19.
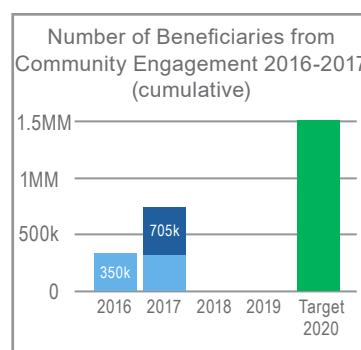
COMMUNITY ENGAGEMENT – SD 2020 TARGET: CONTRIBUTE 1,750 PROJECTS OF COMMUNITY SERVICE, CUMULATIVE

Number of Projects in Community Engagement 2016-2017 (cumulative)

1500	
1000	1,750
500	806
0	373
	2016 2017 2018 2019 Target 2020

This scope covers all employee-based Praxair community engagement activity. The metric counts direct beneficiaries as reported by the employee or the project leader in a Praxair database that has been active since 2010. The 2020 target is a cumulative 1,750 projects from 2017. Praxair reported 433 projects in 2017, cumulatively 806 since 2016 and on track to meeting the 2020 target. Employee volunteers report positive impacts personally and professionally: 87% of volunteers reported that their project improved their management effectiveness; 90% reported that it promoted positive employee engagement; and 96% reported that it increased their awareness of community needs. In addition, 88% report that their projects had a positive impact on Praxair's reputation.

Praxair is a global company with a strong local footprint. Community Engagement projects tend to be just that: local projects that attend to local needs. Employee projects focus on four themes: Health & Wellness (31%); Education & Diversity (42%); Community Support (16%) and Environment (11%). The local focus of these projects is aligned with the business in that region, as the company tends to hire talent, and source contractors and suppliers, locally. This is exemplified by the engagement since 2014 of our team in India with the Mahesh Foundation. The Foundation supports the education and care of 20 children with HIV AIDS. Employees regularly visit and mentor the children and conduct drives to donate essential items. They also lent their engineering skills to help plan a new school. More information is provided in Praxair's *2017 Community Engagement Report* in the Sustainable Development Reporting Center area at www.praxair.com, and the *2017 SVR Annex* section 413-1.

COMMUNITY ENGAGEMENT – SD 2020 TARGET: BENEFIT >1.5 MILLION PEOPLE FROM COMMUNITY ENGAGAGEMENT, CUMULATIVE

Number of Beneficiaries from Community Engagement 2016-2017 (cumulative)

1.5MM	
1MM	
500k	705k
0	350k
	2016 2017 2018 2019 Target 2020

Scope is all employee-based Praxair community engagement activity. The metric counts direct beneficiaries as reported by the employee or the project leader into a Praxair database that has been active since 2010. The 2020 target is a cumulative 1.5 million people benefiting from community engagement from 2016. In 2017, Praxair Community Engagement benefited 355,000 people, cumulatively 705,000 since 2016 and on track to meeting the target in 2020. Since the inception of this reporting metric, Praxair employee community-engagement has benefitted more than 2 million people. More information is provided in Praxair's *2017 Community Engagement Report* and in the Sustainable Development Reporting Center area on our website: www.praxair.com, and the *2017 SVR Annex* section 413-1.

GOVERNANCE 102-18

A comprehensive review of Praxair's corporate governance framework is provided on our website: www.praxair.com.

Praxair's Board of Directors

Praxair's Board of Directors consists of nine Board members; an executive director (chairman and CEO) and eight independent directors. In order to enhance the Board's independence and oversight of management, the independent directors elected a lead director from among their group. The lead director presides over meetings of the non-management directors and performs other duties, including coordinating a performance review of the CEO. The Board also has processes in place for the highest governance body to ensure that conflicts of interest are avoided.
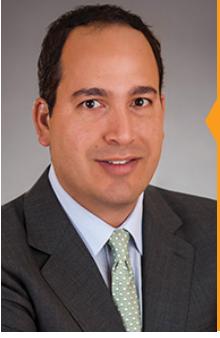
Overall corporate governance, risk management and shareholder engagement is overseen by the full Board and its committees and is

described in on Praxair's website. Among other items, this confirms that the key aspects of the corporate governance structure are in place in areas of particular interest to the sustainability community, such as director independence; appropriate board committees; board effectiveness and alignment with long-term shareholder interests; industry experience; CEO variable compensation; management stock ownership requirements; and disclosure of CEO compensation.

The Board is committed to a strong corporate governance structure; to a diverse, qualified, independent and engaged Board of Directors; to shareholder outreach (including direct communication with the Board); to the integration of shareholder feedback into executive compensation design; and to environmental and social responsibility.

Praxair's Executive Officers

Praxair's Executive Officers are elected by the Board of Directors and serve at the pleasure of the Board. The Board elects Praxair's officers annually following each annual meeting of shareholders.

STEPHEN F. ANGEL
Chairman and Chief Executive Officer, Praxair, Inc.

EDUARDO MENEZES
Executive Vice President

ANNE K. ROBY
Senior Vice President

MATTHEW J. WHITE
Senior Vice President and Chief Financial Officer

GUILLERMO BICHARA
Vice President, General Counsel and Corporate Secretary

KELCEY HOYT
Vice President and Controller

DAVID STRAUSS
Vice President and Chief Human Resources Officer

Alignment with Compensation

In the discussion of annual performance-based variable compensation, the Board Compensation and Management Development Committee observed that the Company's culture is the foundation on which employees drive and deliver financial results. They confirmed the importance of setting non-financial objectives to reinforce leadership's focus on maintaining an enduring culture that supports both short- and long-term sustainable results and established annual non-financial goals with respect to those elements.

Praxair Board: Determining Strategic Non-Financial Goals for Executive Compensation *		
Non-financial Incentives - GOALS	**Non-financial Incentives - DETAIL**	**Strategic Non-financial business results**
Safety: • Zero fatalities • Maintain best in class safety rates • Superior performance in sustainable development including environmental stewardship	• Providing our employees with a safe operating environment through investing in state-of-the-art technology and by driving a culture in which safety is a top priority • Rigorous processes and procedures to ensure compliance with all applicable environmental regulations, to meet sustainable development performance targets and to continuously reduce the environmental impact of our operations in the communities in which we operate	• Maintained world class performance in safety with a reduction of over 25% in significant safety events • Lowest ever high-severity product vehicle accident rates • Received Public Recognition: Dow Jones Sustainability World Index for 15th year in a row.
People Development: • Strengthen leadership pipeline, including globally diverse talent	• Attraction, retention and development of a diverse and engaged workforce through a robust succession planning process • Employee value proposition includes providing strong, dynamic leadership, a challenging work environment, industry leading performance, competitive pay and benefits, and rewards and recognition for outstanding performance	• Continued to develop a diverse pipeline of future senior leaders • Received Public Recognition: Received "Top 25 Noteworthy Company" by DiversityInc and a perfect score of 100 for the second consecutive year by The Human Rights Campaign for workplace equality and advocacy
Compliance: • Maintain a strong global compliance program and culture	• Create and maintain a strong ethical culture in every country where we operate • All employees accountable for ensuring that business results are achieved in compliance with local laws and regulations and our SBI	• Continued programs and practices, such as the annual certification of the SBI, to ensure a strong ethical culture is upheld in every country in which we operate • Received public recognition: Recognized as a 2017 World's Most Ethical Company by the Ethisphere Institute
Productivity: • Enhance organizational capabilities in tools, processes and practices	• Deliver value through continuous innovation to help our customers enhance their product quality, service, reliability, productivity, safety, and environmental performance • Work across disciplines, industries and sectors, with our employees, customers, suppliers and a range of other stakeholders to get more output utilizing fewer resources and with less environmental impact	• Strategically pursued resilient markets; grew to 28% of total sales versus 27% in 2016 • Commercialized more than 25 new technologies in support of growth opportunities • Maintained industry leading project execution with 98% first year reliability • Optimized base business through productivity and cost structure alignment • Had 220+ sites achieving more than 90% waste reduction

* Praxair FORM 10K/A Amendment No. 1 to Annual Report for fiscal year ending Dec 31 2017, page 10

Sustainable Development Governance 102-18

Sustainable development is governed by the Board and executive leadership and integrated throughout Praxair:

The Board Technology, Safety & Sustainability (TSS) Committee assists the Board in its oversight of sustainability and environmental matters. Its charter is provided on www.praxair.com. The committee, which is made up of four independent, nonexecutive directors, met twice in 2017. Among other duties, it reviews Praxair's policies, programs, practices and performance related to identifying and managing priority sustainable development topics. The TSS Committee undertakes a regular review of the Company's sustainability program; its technology strategy - to ensure long-term commitment to innovation and mitigate the risk of obsolescence - and certain enterprise risks such as natural disasters and plant control systems and security. Other risk areas are regularly reviewed by the full Board. Safety and environmental risk are covered at each Board meeting. The vice president, Sustainable Development, reports at least annually to this Committee.

In 2017, the Board TSS Committee reviewed Praxair's policies, programs and practices related to sustainability and the environment, and the first year results for Praxair's new SD 2020 Targets. It also reviewed Praxair's protection strategy to manage potential risk from natural disasters, including its plans for mitigation and handle and recover from events; prioritization of likely areas of risk; and business impact analysis.

Other board committees oversee additional sustainability elements. For example, the **Governance & Nominating Committee** reviews, among other things, the company's responses to broad public policy issues in the areas of social responsibility, corporate citizenship and charitable contributions. The vice president, Sustainable Development reports, at least annually to this committee on progress and outcomes in employee community engagement. The **Compensation & Management Development Committee** reviews compensation and incentives, management development and succession, and diversity policies, objectives and programs.

The Executive Leadership Sustainability Steering Committee is the senior executive-level committee with responsibility for economic, environmental and social topics, and it provides internal oversight of sustainable development. It consists of the six members of the executive leadership team (Praxair's Office of the Chairman [OOC]: CEO, CFO, two EVPs, one SVP and general counsel), the vice presidents of Sustainable Development, Human Resources and Communications; and the director, Investor Relations. This committee meets at least twice a year. It reviews performance to date and reviews and approves priorities, plans and targets for the coming period.

A senior vice president is the highest ranking executive officer responsible for sustainability and is a member of the OOC, reporting directly to the CEO. She is responsible for Global Supply Systems (GSS), R&D, Global Market Development (GMD), Global Operations Excellence (GOE), GPMM, Sustainable Development, Safety, Health and Environment (SH&E), Global Sales and Electronic Materials.

The vice president, Sustainable Development, reports to the senior vice president and is the highest ranking functional leader of sustainability. She coordinates performance and action planning to achieve the SD 2020 Targets and action plans. She coordinates the development of external sustainable development reporting and responses to external third parties such as CDP and DJSI. She is also responsible for coordinating consultations with internal and external stakeholders relating to ESG issues (see the next section: Engaging Stakeholders), and staying current with emerging issues. Emerging issues deemed to be significant may be brought to the attention of the Sustainable Development Corporate Council. If considered relevant, they may be reported to the OOC and the Board Committee. She leads the company's community engagement program as well as global internal and external engagement on sustainable development issues and ensures the fair, reasonable and transparent treatment of all perspectives. She is a member of the Praxair External Reporting Disclosure Committee. The director, Sustainable Development and Community Engagement, reports to the vice president, Sustainable Development.

Business Sustainable Development Councils are established in each business comprised of all the functional leads and coordinated by a business-level Sustainable Development Coordinator. Business Councils meet quarterly. They lead business- and functional-level internal and external engagement on sustainable development and coordinate the implementation of local sustainable development action plans and the SDMS. Business Sustainable Development Coordinators participate in a monthly meeting coordinated by the office of Sustainable Development, and are typically joined by the senior vice president and a range of corporate functional sustainable development leads, e.g. for GPMM, Productivity, SH&E, R&D and Communications. They share sustainable development best practices and challenges between corporate groups and the businesses.

Performance against sustainable development targets is the responsibility of all businesses. Overall reporting is coordinated by the vice president, Sustainable Development. Reporting on specific targets is consolidated and coordinated by one or more corporate functional vice presidents and is reviewed internally at least annually (and in many cases monthly).

Praxair's SD 2020 Targets – Priority Factors and executive coordination						
TARGETS	**SAFETY**	**COMPLIANCE**	**PRODUCT STEWARDSHIP**	**ENERGY & CLIMATE CHANGE**	**SUSTAINABLE PRODUCTIVITY**	**PEOPLE DEVELOPMENT**
RESPONSIBLE EXECUTIVES	VP, SH&E	Chief Compliance Officer	Chief Technology Officer	VPs: Global Operations Excellence, SH&E, Sustainable Development; Director, Energy Management		VPs: HR, SD, Procurement

Praxair's Vision Statement is "to be the best performing industrial gases company in the world as determined by our customers, employees, shareholders, suppliers and the communities in which we operate." Praxair's business strategy reflects continuous engagement with these groups and they are invited to voice their opinions. This in turn provides value to Praxair in several of the <IR> capitals as indicated in the right column of the tables below. This chapter describes ongoing engagement with those stakeholders as well as governmental agencies and industry associations. The section following, *Confirming Priorities*, describes stakeholder engagement related to the development of this Report and confirms the continued relevance of Praxair's PFs and SD 2020 Targets.

Employees

Praxair is committed to the safety, well-being and professional development of all employees worldwide. The company is committed to providing a safe and inclusive workplace with an emphasis on the highest standards of integrity and professional performance. This allows Praxair to maintain a high rate of employee engagement (see *Performance Dashboard*, page 27), which in turn helps build intellectual and human capitals.

Group	Frequency	Key Topics	Response to key topics	Value
All employees	Continuous	• Pay • Conditions	• Praxair provides a range of employee benefits and has a robust training and development program and annual employee performance appraisals.	
All employees	Continuous	• Employee retention and engagement	• A global employee survey is conducted every 2-3 years. • We run periodic pulse surveys in the years between. • For employee volunteerism and community engagement, see the *Performance Dashboard*, page 22.	

Customers

Customer retention is crucial to Praxair's results. A significant portion of Praxair revenue is earned from recurring customers and retained accounts. Praxair's applications bring productivity benefits to our customers and help build Praxair's financial, intellectual, manufactured and natural capitals.[1]

Group	Frequency	Key Topics	Response to key topics	Value
All customers	Continuous and periodic	• Productivity • Competitive advantage	• Work continuously to integrate Praxair's business with that of its customers, and continue to offer them relevant technologies to improve their resource efficiency and positive environmental impacts – particularly in energy use and the reduction of GHG emissions. See http://www.praxair.com/our-company/sustainable-development/white-papers	
All customers	Continuous and periodic	• Safety • Product knowledge • Quality	Globally, Praxair assures customers of safe, reliable and quality supplies of critical ingredients. For example, in 2017: • Praxair India won Best Supplier Performance Award by Vista Processed Foods Private Limited, an OSI Group Company. OSI Group is the premier global food provider of meats, vegetables, fruits and other proteins in India. Praxair received this award for exceeding the customer's expectations for reliability and on-time supply of food grade CO_2. • Praxair Germany participated in a safety commitment day of one of its larger pipeline customers. Praxair demonstrated safety features of its trucks; and showed a video on how to safely handle the main industrial gas products supplied to this facility.	
Subset concerned about ESG issues	Periodic	• Climate Change • Energy Efficiency	Globally, Praxair works with customers to improve energy efficiency and reduce GHG emissions. For example, in 2017: • Praxair's new hydrogen facility for Dow Chemical in the U.S. Gulf Coast will re-purpose up to 200+ million cubic feet of byproduct hydrogen each day, upgrade that to raw material grade and reduce process GHG emissions by 300,000 metric tons per year. See https://www.youtube.com/watch?v=TrfNaUfkvsw • The EU European Commission awarded Praxair and its customer, Libbey Inc. a 2.3 million euro LIFE grant, designed to support environmental, conservation and climate action projects. This grant supports the installation of Praxair's OPTIMELT® thermochemical regenerator (TCR) system at Libbey's glass melting facility in the Netherlands that reduces carbon dioxide (CO_2) and nitrogen oxides (NOx) emissions by approximately 45-60% and 30-40% respectively.	

Shareholders

Record free cash flow ($1.7 billion in 2017, representing 15% of sales) enabled Praxair to return to shareholders approximately $1.0 billion in 2017 primarily in the form of dividends, and to increase its dividend by 5% beginning in the first quarter of 2018, marking the 25th consecutive annual dividend increase. Consistent and ongoing outreach to the SRI community helps build Praxair's reputational (social and relationship) capital.

Group	Frequency	Key Topics	Response to key topics	Value
Regular investors	Continuous	• Leadership • Financial returns • Governance • Compliance	• Praxair stockholders continued to demonstrate a strong commitment to Praxair and its management team. • All Board members elected to serve another term, all with >90% of votes cast. • All proposals to shareholder vote were approved by substantial majorities. • Praxair engaged in direct meetings or telephone calls with >340 investors representing >80% of Praxair stockholding.	
SRI investors	Periodic	• Energy and GHG footprint • Sustainable productivity initiatives • Sustainability portfolio	• Of >340 investor meetings and calls, >20 meetings or calls were focused specifically on ESG-related issues, representing 10% of Praxair stockholders. Communications were typically held with the director, Investor Relations, often with the VP, Sustainable Development. • Praxair considers the DJSI and CDP questionnaires as proxies for emerging relevant sustainability questions; they are built into the company SDMA as appropriate. • In 2017-2017, additional engagement included International Integrated Reporting Council (IIRC) U.S. SIF (Sustainable Investment Forum).	

Suppliers

Demonstrating our commitment to "making our planet more productive," Praxair infuses its core values through supply chain engagement initiatives structured to cultivate supplier capacity. In doing so, we drive better business performance, sustain higher quality, improve eco-proficiency and product development, including access to innovation, and we boost natural, financial, social and relationship capitals. We optimize initiatives locally and across the globe by focusing on select commodities and distinct groups of suppliers.

Group	Frequency	Key Topics	Response to key topics	Value
Electric utility and capital equipment suppliers	Continuous	• Energy efficiency	Praxair works with some of our major electricity and capital equipment suppliers around the globe to identify and implement programs that optimize energy efficiency in our plants; thereby contributing to local communities. For example, in 2017: • During a project in India, our procurement team adopted a life cycle cost approach as the basis for evaluating and awarding a contract for energy efficient capital equipment for an ASU plant. By incorporating this methodology, they were able to collaborate with the bidding suppliers to optimize an equipment solution which ultimately reduced energy consumption by approximately 1.0 million kilowatt hours a year – enough to provide power to more than 800 homes in India. • In Canada Praxair worked to retread tires for its heavy-duty fleet. By utilizing the original quality casing, a retread can eliminate scrap tires being sent to landfills which directly contributes to our Zero Waste program results. Additionally, it significantly reduces the greenhouse gas emissions during the manufacturing process, as it takes only seven gallons of oil to produce a retread against 22 to manufacture a new tire. By working with our supplier to implement this program, Canada was able to retread more than 1,000 commercial tires contributing to a savings in excess of 60,000 liters of oil.	
Contract drivers	Continuous	• Safety	• Contract drivers receive the same or comparable levels of training and often technology investment as Praxair drivers. • Contract drivers are included in Praxair's SD 2020 Target for reduced product vehicle accidents.	
Minority suppliers	Continuous	• Capacity building	• Praxair has an SD 2020 Target to promote engagement and help build capacity among suppliers designated as diverse business enterprises; this was achieved (see *Performance Dashboard* page 31 and Driving Sustainable Value - People Development - Suppliers, page 19, which shows the benefits of Praxair's Supply Chain Financing program and the Suppliers area on www.praxair.com).	

Communities

Praxair is at its core a "local" company. Praxair makes large, capital investments near customer sites and signs long-term supply agreements. Whenever possible, Praxair distributes product locally to reduce the costs of long-distance truck transport. The company, therefore, makes long-term investments in communities where it builds facilities, and looks locally for talent, leadership and suppliers. This in turn helps build Praxair's reputation and business relationships (i.e., social and relationship and financial capitals).

Group	Frequency	Key Topics	Response to key topics	Value
Praxair corporate/Global Giving Program	Continuous	• Diversity • Education • Healthcare • Environment	• Community engagement is a part of Praxair's culture and is encouraged by leadership. Praxair engages with its communities by building close relationships with local providers of emergency services, with employee volunteer projects that help build community resilience and through the Praxair Global Giving Program (see *SVR Annex* section 413-1).	
Employees	Continuous	• Community resilience	Praxair has a strong community engagement program and activity in all businesses (see *SVR Annex* section 413-1). • For example in 2017, Praxair community engagement in 2017 brought direct benefits to >355,000 people around the world. See Praxair 2017 Community Engagement brochure in the Sustainable Development Reporting Center on www.praxair.com).	

Government Agencies

Praxair has a strong global ethics and compliance program. This helps build reputational capital (social and relationship). Praxair was named a 2017 and 2018 World's Most Ethical Company® by the Ethisphere Institute.

Praxair's Government Relations department participates in discussions with federal and state governments regarding legislation that drives energy efficiency, delivers positive outcomes in electricity regulation and supports our unique technologies to produce clean energy. See *SVR Annex* section 415-1 and the Government Affairs area on www.praxair.com.

Group	Frequency	Key Topics	Response to key topics	Value
Government agencies	Continuous	• Compliance	• Praxair maintains a detailed oversight process to ensure that its activities are conducted in a legal, ethical and transparent manner. • Praxair certifies employees on issues related to doing business with the government, complying with anti-trust and competition laws and the U.S. Foreign Corrupt Practices Act (FCPA). • Praxair meets with members of the U.S. Congress, as well as with federal, state and local officials to discuss energy costs, energy efficiency, tax and trade-related issues and the environmental benefits of Praxair technologies.	

Industry Associations & Groups

Praxair is a member of a range of trade associations, business associations and alliances, including national chemical associations and industrial gas associations in the company's key geographies, and manufacturers associations and chambers of commerce, through which it interacts with government officials and stakeholders to educate policy makers on issues that are important to the company. This helps build financial and reputational capitals. See *SVR Annex* section 102-13 for a full list of industry associations.

Group	Frequency	Key Topics	Response to key topics	Value
Industry groups	Continuous	• Policy development	• In many cases, a Praxair executive holds a board seat and/or serves on a relevant committee, or Praxair participates in projects, where it views membership as a strategic partnership. • Praxair also participates in additional local and regional organizations.	
Chemical industry	Continuous	• Responsible Care®	• Praxair is certified to the RCMS® and is a signatory of its Global Charter.	

CONFIRMING PRIORITIES 102-47

Praxair performs a full Sustainable Development Materiality Assessment (SDMA) every five years in preparation for setting new five-year targets. This was reported in the 2016 SVR. An external assurance performed against the AA1000AS Standard confirmed that the SDMA conformed to the AA1000APS (2008) principles of inclusivity, materiality and responsiveness; that select KPI assertions in Praxair's SVR were accurate and reliable in accordance with the Standard and that Praxair's PFs were in general alignment with the GRI G4, UNSDGs, RCMS and Sustainability Accounting Standards Board (SASB) frameworks. Each year, Praxair conducts a condensed SDMA to confirm alignment and consider adjustments and improvements. In 2017, we sought views of internal and external stakeholders. These affirmed that the SD 2020 targets remained relevant and no changes were made.

INTERNAL REVIEW
Internal review of the targets included meetings with business presidents and functional directors, and annual meeting with the Praxair Board Technology, Safety and Sustainability Committee.
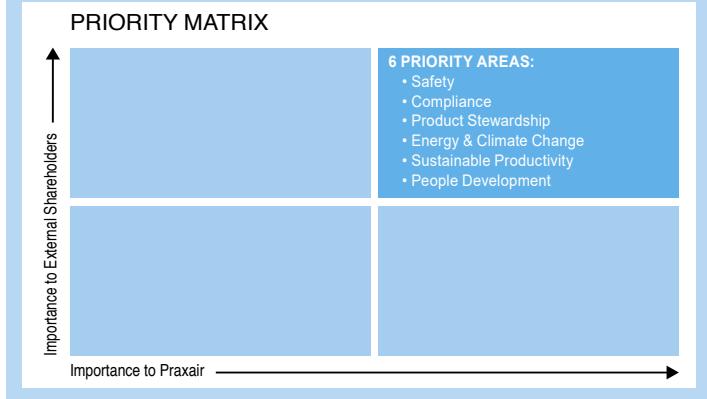
EXTERNAL STAKEHOLDER REVIEW
Additional stakeholder engagement conducted in 2017 - early 2018 confirmed Praxair's SD 2020 priorities and helped prepare for this report. They included:

SRI Investors and Industry Groups: Presentations were made and meetings held with a range of industry audiences, Praxair investors and broader SRI groups, to communicate Praxair's SD 2020 targets, performance against these targets, and their long-term impacts on global aspirations such as the UN SDGs.

GRI Transition to Standards: This year this report has been prepared in accordance with the GRI Standards: Core option. Details are provided in the *SVR Annex*.

2017 Priority Factors

PRIORITY MATRIX

Importance to External Shareholders →

6 PRIORITY AREAS:
• Safety
• Compliance
• Product Stewardship
• Energy & Climate Change
• Sustainable Productivity
• People Development

Importance to Praxair →

International <IR> Framework: Provided feedback on the technical program of the IIRC.

CONCLUSION

103-1 Praxair is confident that its six PFs remain appropriate globally within the organization. Some Factors also pertain to external stakeholders with which we interact globally: elements of our safety and compliance oversight pertains to Praxair, JVs and business partners, contractors and suppliers and NGO relationships. Product stewardship pertains to customers. People development pertains to suppliers and our communities. The six PFs are indicated in the top quadrant of the Figure: 2017 Priority Factors. The top six elements remained unchanged from the prior year. The full set of PFs, Issues, and SD 2020 Targets, is provided in the Performance Dashboard on page 22. The table: Integration of Sustainable Development shows that the SD PFs remain aligned with Praxair's vision, values, key risks and non-financial incentives for executive compensation.

Integration of Sustainable Development

Vision, Values	2017 *Annual Report*: Item 1A Risks	*Praxair 2017 FORM 10K/A Amendment No. 1* Non-financial Incentives - GOALS	SD 2020 Priority Factors
Safety	• Operational Risks, incl. to People & Environment	Safety: • Zero fatalities • Maintain best in class safety rates	Safety
Integrity	• Litigation and Governmental Investigations	Compliance: • Maintain a strong global compliance program and culture	Compliance
Customer Satisfaction	• Technological Advances: R&D	Productivity: • Enhance organizational capabilities in tools, processes and practices	Product Stewardship
Environmental and Social Responsibility	• Cost and Availability of Raw Materials and Energy • Governmental Regulations • Catastrophic Events • Climate Change	Environmental Performance and Sustainability: • Superior performance in SD including environmental stewardship	Energy & Climate Change
Results Driven	• Cost and Availability of Raw Materials and Energy	Productivity: • Enhance organizational capabilities in tools, processes and practices • To get more output utilizing fewer resources and with less environmental impact	Sustainable Productivity
People	• Retaining Qualified Personnel	People Development: • Strengthen leadership pipeline, including globally diverse talent	People Development

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